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Draft

CLEAR CREEK MANAGEMENT PLAN and Environmental Assessment

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Department of the Interior
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Bakersfield District

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
P.O. Box 365
Hollister, California 95024-0365
Phone: (408) 637-8183

IN REPLY REFER TO: 1792
C-019.3

Dear Reviewer:

Enclosed for your review and comment is the draft Clear Creek Management Plan and Environmental Assessment. This plan and assessment outlines possible actions and alternatives for managing the use of approximately 48,000 acres of public lands in the Clear Creek Management Area and portions of two adjoining Management Areas (Map 1).

Comments concerning this management plan and assessment will be considered in the preparation of the final management plan and environmental assessment. Written comments should be received at the address below no later than _____, 1985. Comments received after the review period will be considered in the decision process, even though they may be too late to be considered in the final plan and assessment.

You will automatically receive a copy of the Final Clear Creek Management Plan and Environmental Assessment, unless you indicate otherwise. Your interest and comments are appreciated in the development of a management plan for your public lands. Please address your comments to:

David E. Howell
Bureau of Land Management
Hollister Resource Area
P.O. Box 365
Hollister, California 95024-0365
(408) 637-8183

Sincerely,

David E. Howell

David E. Howell
Area Manager

SUMMARY

This activity plan will implement specific land use decisions as set forth in the Hollister Resource Management Plan. This plan details specific objectives and planned actions for the Clear Creek Management Area (including the Clear Creek Area of Critical Environmental Concern). Planned actions are a combination of Alternatives 1 and 3 (Proposed Action and Present Management) as shown in Chapter 2 of the Environmental Analysis section.

Planned actions to manage cultural resources include: site protection, data retrieval at three sites, and limited in-house testing at four sites.

Planned actions to improve wildlife habitat include: installation of 15 guzzlers, protection of nine riparian areas, and prescribed burning of about 10,000 acres of chaparral brushfields.

Planned actions to manage recreation use include: development of camping and staging facilities off the hazardous asbestos area (at the entrance to Clear Creek and the Jade Mill area), development of a comprehensive signing program, increased visitor services (including a delegated law enforcement ranger), development of an administrative site in the Jade Mill area, development of six staging areas and associated trail system in Clear Creek canyon in order to implement the limited ORV designation, acquisition of approximately 27,000 acres of private in-holdings through exchange or purchase, acquisition and designation of the Joaquin Rocks as an Outstanding Natural Area (and Area of Critical Environmental Concern), and development of cooperative management agreements with user groups for project development and maintenance.

Planned actions to reduce asbestos exposure include: a vehicle washing facility, signing, brochures, and news releases, increased visitor services, vehicle closure of asbestos mine areas, application of a dust suppressant to the Clear Creek Road and staging areas, a proposed protective withdrawal of Clear Creek Canyon from mining activity (locatable mineral entry), and development of camping/staging areas located off the hazardous asbestos area.

Planned actions to reduce erosion and sedimentation include: stabilization and rehabilitation of severely eroding trails, hill climbs and barren areas in Clear Creek Canyon,

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installation of four silt catchment basins, improvement of the Clear Creek Road (stream crossings, etc.), maintenance of roads and trails in the area and a proposed protective withdrawal of Clear Creek Canyon from locatable mineral entry.

Planned actions to enhance rare, threatened or endangered plant habitat include: an ecological study of the San Benito evening primrose, rehabilitation and seeding of two potential habitat areas, development of camping/staging areas off the serpentine area, and a proposed protective withdrawal of Clear Creek Canyon and the San Benito Mountain Natural Area from locatable mineral entry.

Planned actions to manage hobby gem and mineral resources include: a proposed protective withdrawal of Clear Creek Canyon from locatable mineral entry and a proposed site-specific withdrawal for other known collecting areas outside Clear Creek Canyon (1-2 acres at each locale).

Planned actions to manage unique soil study areas include: identification, protection, and study of discrete plots in cooperation with the academic community.

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2B.	Proposed Action (Alt. 1) (large map)	Packet inside back cover
2C.	Proposed Action (Alt. 1) (Clear Creek Canyon inset)	Following Page 100
2D.	Oak Flat Site Development	Following Page 100
2E.	Jade Mill Site Development	Following Page 100
2F.	Jade Mill Site Development (Intensive Use)	Following Page 100
3.	Alternative Action (Alt. 2) (large map)	Packet inside back cover
4A.	Present Management (Alt. 3) (large map)	Packet inside back cover
4B.	Present Management (Alt. 3) (Clear Creek Canyon inset)	Following Page 100

DRAFT CLEAR CREEK MANAGEMENT PLAN

Bakersfield District
GENERAL LOCATION OF THE CLEAR CREEK MANAGEMENT AREA

MAP 1

MANAGEMENT PLAN

INTRODUCTION

Purpose and Need

The Clear Creek Plan Management is a multiple-use plan using the coordinated resource management planning concept. Rather than prepare separate activity plans (such as a Habitat Management Plan, Cultural Resources Management Plan, Watershed Management Plan, etc.), this plan will address all activities within the 48,121-acre Clear Creek/Condon Peak Management Area (MA) as well as portions of the Joaquin Rocks and Call Mountain/Hernandez Valley Management Areas. This document is a combined management plan and environmental assessment outlining alternative means to achieve specific goals and decisions for the MA as set forth in the Hollister Resource Management Plan (RMP) prepared in 1984.

It will specifically address on-the-ground management needs and actions for the Clear Creek Serpentine Area of Critical Environmental Concern (ACEC), designated on August 6, 1984 when the RMP became final. The plan addresses the following issues (the last five of which are related to the ACEC):

1. Cultural Resources
2. Wildlife Habitat
3. Recreation
4. Asbestos Hazard
5. Watershed Concerns
6. Rare, Threatened, or Endangered (RTE) Plant Habitat
7. Hobby Gem and Minerals
8. Unique Soils

Applicable management goals and rationale for the MA (from the Hollister RMP) are shown in the following section. They serve to focus on the management complexity of the area and the need for special management attention as recognized by the ACEC designation.

Management Goals:

Encourage mineral exploration and development to meet local, regional, and national needs in balance with other resource values.

Manage fire to provide a continuing program of fuel hazard reduction, range improvement, wildlife habitat improvement, and watershed improvement/stabilization.

Manage recreation in the area to provide for public health and safety, minimizing conflicts with other resources and other public land users, and adjacent landowners.

Provide for increased management efficiency through land tenure adjustments to meet various management needs in the area.

Improve habitat conditions for deer and other wildlife. Protect and/or enhance sensitive plant habitat.

Stabilize and/or improve watershed conditions and reduce the threat of exposure to airborne asbestos dust in the area.

Protect significant cultural, historical and visual resource values as well as the unique soil and vegetation of the area.

Rationale:

The area is highly mineralized and significant mineral production has occurred in the past. A moderate to high potential for mineral occurrence currently exists as well as a high interest in mineral development. Critical and strategic minerals such as chromite exist in the area.

Sensitive resource values in both Clear Creek Canyon and the San Benito Mountain Natural Area can be easily impacted by mining activity. These include RTE plant habitat, critical watershed values, and significant hobby gem and mineral collecting areas. Critical and strategic mineral development can also be impacted by protection of other sensitive resource values.

Large expanses of decadent chaparral constitute a high fire hazard and make large areas unusable for many species of wildlife as well as livestock. The use of fire is a cost-effective means of maintaining healthy, productive, chaparral brushfields.

The demand for recreation opportunities in this area is extremely high. A substantial amount of time, effort and fiscal commitment have gone into the development of management plans and project implementation in the area. This is the result of many years of planning and consultation with concerned agencies, groups, and individuals.

Land tenure adjustments are needed to resolve existing and potential trespass problems (resulting from private inholdings) and a lack of suitable camping areas off the serpentine area.

Known and potential habitat for sensitive plants needs to be protected and/or enhanced to prevent these species from becoming officially listed as threatened or endangered.

Critical soil, air, and watershed concerns will require special attention in order to protect human health and safety in the area. Downstream sedimentation needs to be minimized to the extent possible using the best available management practices.

Significant cultural, historical, and visual resource values as well as the unique soil and vegetation characteristics are an irreplaceable aspect of the area. They have formed the basic character of the Clear Creek area which is in itself unique. Data from cultural sites could also provide significant information on the historic and prehistoric uses of the area.

A summary of applicable resource management decisions for the MA from the Hollister RMP are contained in Appendix 1.

Relationship to Existing Activity Plans

Off-road vehicle (ORV) use designations were completed for the area in 1982 (Clear Creek ORV Designation Environmental Assessment (EA) and Implementation Plan). These designations were reaffirmed in the RMP and are carried forward with slight modification in this plan. A Green Sticker OHV Grant (Clear Creek I) was obtained from the State of California in 1983 for the purposes of implementing the ORV Designation and Implementation Plan. Project implementation is proceeding in 1985-86 with priority given to protecting RTE plant habitat and severely eroding hill climb areas.

This management plan addresses additional actions to enhance management opportunities and reduce resource conflicts or damages. It specifically addresses the Clear Creek II Green Sticker Cooperative Agreement (Off-Highway Vehicle or OHV Grant) for acquisition and development of the entrance parcel per the RMP. The grant application has been submitted--funding is subject to approval but may be available after July 1985. Possible actions related to development of the adjacent Martin Ranch State OHV Park are also considered. A third Grant (Clear Creek III) is currently in the project proposal phase.

Watershed Guidance (Best Management Practices) for the Clear Creek Area was prepared in 1984 (specific RMP decision). The Watershed Guidance outlined possible management practices that could be utilized to control erosion and reduce sedimentation in the area. These included the OHV Grant measures (Clear Creek Road improvements, vehicle barriers) and additional actions that are evaluated on a site-specific basis as a part of this plan.

The San Benito County and Fresno/Monterey County Prescribed Burn Plans (1980 and 1984 respectively) outlined prescribed burning for range improvement, fuels reduction, watershed enhancement, and wildlife habitat improvement within the MA.

These plans were also reaffirmed by the RMP. An active program of prescribed burning has been taking place since 1980 in the Condon Peak area. Some burning has also been done in the Byles Canyon area. This plan addresses additional prescribed burning opportunities related mainly to acquired lands. It specifically addresses modified fire suppression in the San Benito Mountain Natural Area.

The New Idria National Cooperative Land and Wildlife Management Area was established in 1963 by Public Land Order 2460. A Wildlife Management Plan was prepared by the California Department of Fish and Game (CDFG) and partially implemented. The San Benito Deer Herd Plan (covering the San Benito County portion of the MA) was completed by CDFG in 1984. The Avenal Herd Plan (Fresno County portion) is in the draft stages.

This plan addresses habitat management actions (consistent with these deer herd plans) that will be implemented under Sikes Act Authority with CDFG.

OBJECTIVES

Management Area-Wide (Non-ACEC)

1. Cultural Resources

    a. Determine appropriate measures for protection, data retrieval, and interpretation compatible with other uses.

    b. Provide for research to expand the knowledge and understanding of past cultures in the area.

2. Wildlife Habitat

    a. Manage habitat to improve conditions for deer, upland game and other wildlife. Develop sources of food, water, and cover where these are limiting factors.

3. Recreation

    a. Maximize compliance with management decisions (ORV use designations, etc.), provide for user needs and visitor safety, and minimize conflicts with adjacent landowners.

    b. Develop additional facilities and management strategies to minimize asbestos hazards and resource conflicts.

    c. Develop compatible management strategies with the proposed Martin Ranch State Vehicular Recreation Area (SVRA).

Area of Critical Environmental Concern (ACEC)

1. Asbestos Hazard

   a. Do not encourage public use within the ACEC, however ensure that visitors have an improved awareness of the health hazard and ways to minimize personal exposure.

   b. Minimize exposure particularly in main use areas (camping areas, main roads).

   c. Minimize exposure related to authorized actions (events, mining plans, etc.).

   d. Minimize exposure related to the asbestos mine areas.

   e. Minimize off-site exposure related to transport of mud, dust, and dirt on vehicles.

2. Watershed Concerns

   a. Limit sediment production from roads, trails, and disturbed areas (hill climbs, mining areas).

   b. Limit vegetation and stream channel disturbance and associated sediment production.

   c. Minimize direct mass movement of soil into stream channels (from steep slopes and mining areas).

3. Rare, Threatened, or Endangered Plant Habitat

   a. Determine minimum or optimum population size necessary to sustain RTE plant species

   b. Manage habitat to protect or enhance these species.

   c. Manage the unique plant community in the San Benito Mountain Natural Area for its natural and scenic value.

4. Hobby Gem and Minerals

   a. Determine strategies to minimize conflicts with locatable mineral claimants and surface disturbing actions.

5. Unique Soil Areas

   a. Protect/manage representative soil research areas for their scientific and educational values.

CONSTRAINTS (from the RMP)

This section lists constraints on planned actions listed in the following section. They do not constrain other actions outside the scope of the management plan.

1. Livestock grazing will continue in the area under the existing Upper Los Gatos Creek Allotment Management Plan (AMP) and other grazing leases.

2. Communications sites and utility rights-of-way within the MA are recognized as valid and existing authorizations.

3. Valid mining claims have prior existing rights as provided by the mining laws. Surface disturbance on mining claims is regulated by surface management regulations (43 CFR 3809).

4. Public lands will be managed for the protection and enhancement of sensitive, rare, threatened, or endangered species. All known or potential habitat will be evaluated prior to implementing actions which may affect them. Consultations in accordance with Section 7 of the Endangered Species Act will be conducted if appropriate.

5. Before implementation of surface-disturbing projects, including range developments and vegetation manipulations, cultural resources will be inventoried and evaluated and attempts will be made to avoid adverse impacts to National Register eligible sites, when feasible. Consultation will be made with the State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP), as necessary, to develop acceptable mitigation strategies, in accordance with the Rangeland Programmatic Memorandum of Agreement of January 14, 1980, between the BLM, the ACHP, and the National Conference of SHPOs.

6. All surface-disturbing actions must meet the following Visual Resource Management (VRM) criteria:

   a. Class 1 in the San Benito Mountain Natural Area and extension.

   b. Class 3 in the Condon Peak area.

   c. Class 4 in the remainder of the area.

7. Construction of fences in wildlife use areas will meet BLM specifications to permit the movement of identified wildlife.

8. Livestock watering developments will be available and useable for wildlife, as identified.

9. Spring developments will generally be fenced to prevent trampling by livestock.

10. All surface-disturbing activities will be controlled, planned, and designed to minimize erosion.

11. Prescribed burns will be conducted to provide mosaic patterns of vegetation to protect soil, watershed, and wildlife (especially mature chaparral dwellers).

12. Consistency with state fire and air pollution laws will be maintained within Department of the Interior regulations and Bureau of Land Management policy. Acceptable burn days will be determined in coordination with state and local agencies.

13. Protection or enhancement of riparian areas will be given consideration in all activity plan development.

14. Boundary posting and visitor use patrols will be initiated in recreation areas concurrent with access development and/or enhancement. BLM will cooperate with adjacent private landowners to the extent possible.

15. Check dams or other erosion control structures will be used, where practical, to decrease erosion resulting from management activities.

16. Prescribed burning during the spring (April through June) will be kept to a minimum.

17. Brush crushing, "high-blading," and/or fireline construction (mechanical preburn site preparation) will be performed when soil and fuel moisture levels are low enough to prevent undue surface (soil) disturbance and to maximize pretreatment objectives.

18. The Clear Creek, San Carlos Creek, and Sawmill Creek roads are county roads administered and maintained by San Benito County.

19. Special management practices will be developed for the ACEC in order to protect and prevent irreparable damage to important resource values and to protect life and property from natural hazards.

PLANNED ACTIONS

Planned actions are a combination of Alternatives 1 and 3 (Proposed Action and Present Management) as shown in Chapter 2 of the Environmental Analysis section).

Management Area-Wide (Non-ACEC)

1. Cultural Resources

   a. Protect archaeological sites in the White Creek Archaeological District by maintaining the existing road closure (in lower White Creek Canyon) until such time as these sites are sufficiently evaluated.

   b. Initiate data retrieval (excavation) at three sites (see Appendix 2).

   c. Work with research institutions to the extent possible on data retrieval actions.

   d. Use fences or barriers where necessary to protect sites from human-caused or other disturbances.

2. Wildlife Habitat

   a. Install 15 guzzlers to provide water for deer, wild pigs, quail, and other wildlife (see Map 2B and Appendix 3).

   b. Fence portions of eight meadows in the Condon Peak area to preclude livestock grazing and vehicle use (one acre or less at each site). See Map 2B and Appendix 3.

   c. Install rock barriers at Spanish Lake to protect the unique serpentine "vernal pool" vegetation from camping and vehicle use (see Map 2B and Appendix 3).

   d. Develop the Agua Buena spring site for the enhancement of wildlife habitat (see Map 2B and Appendix 3).

   e. Continue and/or implement a rotational program of prescribed burning in the Condon Peak, Byles Canyon, San Carlos Bolsa, Sampson Peak and Goat Mountain areas (see Map 2B and Appendix 3). Burn approximately seven percent per year (average) in scattered spots and patches.

3. Recreation

a. Acquire and develop 160 acres of private land (Clear Creek I1 OHV Grant) at the entrance to Clear Creek Canyon for use as an ORV camping, staging, and trail riding area (see Maps 2C and 2D and Appendix 4). A nearby San Benito evening primrose site will be closed to camping and protected by vehicle barriers. Riparian areas and oak trees will be protected to the extent possible using barriers. Gravel and/or a dust suppressant will be applied to graded and leveled parking area surfaces to reduce erosion, soil disturbance, and dust generation. Maintain a fuelbreak around the area.

Provide an information kiosk near the main entrance (see Map 2C and Appendix 4). The kiosk would be located to encourage visitors to stop and view information provided. The kiosk would contain a map and information concerning:

- Asbestos health hazards (effects and ways to minimize exposure)
- ORV use designations
- Fire prevention
- Regulations
- Natural resources of the area
- Emergency assistance
- BLM Hollister Resource Area phone number and address

Other agency/user groups' endorsement of management strategies (also indicating that facilities have been provided using Green Sticker funds) will be incorporated into signing.

b. Develop the lower Jade Mill area as a non-ORV camping area (see Map 2C and Appendix 4). Oak trees will be protected to the extent possible using barriers. Gravel and/or a dust suppressant will be applied to graded and leveled parking area surfaces. Maintain a fuelbreak around the area.

Develop the upper Jade Mill area as an administrative site and ORV camping/staging area (see Maps 2C and 2E and Appendix 4). The exact location is dependent on resolution of the existing millsite trespass. Development would consist of grading, leveling, barriers and fuelbreak as above. The area has the potential for more intensive development. Future development would consider a phased implementation to expand the capacity of the ORV camping/staging area to accommodate up to 300 vehicles (see Map 2F).

Provide facilities for resident caretaker(s) and visitor services specialist(s) at the administrative site:

- BLM base radio station
- Telephone (available for emergency or public use)
- CB shortwave base with emergency channel
- Heliport
- Emergency first aid facilities with hospital bed

c. Develop a trail system leading from camping/staging areas to back country trails (see Map 2C and Appendix 4). Each trail will be named and/or numbered and keyed to the Clear Creek map.

d. Provide a bulletin board at each camping/staging area with a summary of information contained in the entrance kiosk (also a location map indicating "You are here"). Each camp will be identified by name. Other agency/user groups' endorsement of management strategies (also indicating that facilities have been provided using Green Sticker funds) will be incorporated into signing.

e. Provide directional signs at all major road junctions such as Spanish Lake and Sawmill Creek (see Map 2B and Appendix 4). Make signs as vandal proof/resistant as possible (e.g., metal).

f. Post public/private land boundaries where trespass is a problem (see Map 2B and Appendix 4). Use brightly colored orange "carsonite" posts.

g. Acquire, through exchange or purchase, state lands and private inholdings in the Byles Canyon/Tucker Mountain, San Carlos Bolsa, and Joaquin Rocks areas, as well as the remainder of the management area. Concentrate on exchanges involving Fat City Cattle Co., Southern Pacific Land Co., and the state and/or Phillip Martin Ranch. Specifically, acquire the Spanish Flat area near Mexican Reservoir (see Map 2A).

h. Develop vehicular (four-wheel drive) access from North Hill into the San Carlos Bolsa area (see Map 2B and Appendix 4).

i. Make minor modifications to existing vehicle use designations as a result of land tenure adjustments and to protect significant riparian and RTE plant and wildlife habitat (see Map 2B).

j. Develop a half-mile hiking trail to the Joaquin Rocks and a small, primitive campsite nearby (e.g., three tables). Subsequent to acquisition, 40 acres surrounding the Joaquin Rocks should be designated as an Outstanding Natural Area and Area of Critical Environmental Concern (ACEC). In the interim (prior to designation which will require an RMP amendment), the area will be managed for its scenic and historical value with emphasis on providing hiking, hunting, and primitive camping opportunities. The boundary of the proposed Natural Area will be protected by vehicle barriers where necessary (see Map 2B and Appendix 4).

k. Develop Cooperative Management Agreements with user groups to develop trail systems (adopt-a-trail), other project work, and volunteer patrols to the extent possible.

l. Provide a delegated law enforcement ranger (minimum two days per week) and at least two full-time visitor services specialists in the management area. Enter into a cooperative agreement with the state to provide back country patrols from the Martin Ranch SVRA (in areas of the Clear Creek management area that are adjacent to the Martin Ranch SVRA). Maintain the cooperative law enforcement agreement with San Benito County. Maintain or intensify fire prevention patrols. Increase warden patrols by CDFG to the extent possible.

m. Develop six staging areas in Clear Creek Canyon. Development consists of leveling, application of a dust suppressant, installation of three vault toilets (in addition to four existing), and installation of barriers around use areas to protect vegetation (see Map 4B).

n. Redesign and grade the Clear Creek Road to improve winter access and reduce erosion. Install 10 concrete stream crossings and apply a dust suppressant on the road surface (see Map 4B).

o. Install vehicle barriers in Clear Creek Canyon and the San Benito Mountain Natural Area to protect closed areas, severely eroding hill climbs, riparian areas, and endangered plants (see Map 4A and 4B).

p. Install "Open," "Limited," and "Closed" area signs to clarify zones of vehicle use.

q. Maintain the information bulletin boards at the Mexican Reservoir Junction (see Map 4A).

Upgrade interpretive signs at barrier locations.

Continue providing interpretive map/pamphlet (Clear Creek Management Area map).

Maintain existing directional signs at certain major road junctions (see Map 4A).

r. Identify mining related and other public hazards during regular patrols and eliminate or mitigate as soon as possible.

s. Identify and resolve mining related trespasses with priority given to those cases where conflicts are occurring with visitor use and safety.

Area of Critical Environmental Concern (ACEC)

1. Asbestos Hazard

a. Provide a vehicle washing facility (wash rack) at the main entrance to Clear Creek (see Map 2C and Appendix 5).

b. Signing - see Recreation a., d., Management Area-wide section. Also, provide asbestos hazard pamphlet/ brochure to Central California motorcycle shops, sporting goods stores, etc. Issue news releases highlighting the area's asbestos hazard at least twice annually. Provide asbestos warning signs at all roads and trails entering the serpentine area.

c. Do not allow organized events between June 1 and September 30.

d. Camping - see Recreation a., b., Management Area-wide section.

e. Provide additional visitor services staff to provide increased awareness through personal contact (see Recreation 1., Management Area-wide section).

f. Work with Cal Idria Corp. to develop a rehabilitation plan, including posting of a bond to assure that the plan is implemented. Work through San Benito County to request development of the plan as required under the California Surface Mining and Reclamation Act of 1975 (SMARA). The existing plan of operation does not include rehabilitation requirements.

g. Designate the asbestos mine areas as closed to off-road vehicle use on the Clear Creek Management Area map (see Map 2B). Access for mining operations would be granted under 3809 plans of operation.

h. Post boundaries of asbestos mining areas as closed to off-road vehicle use--especially where trails lead to or through these areas. The main road through the Atlas Mine site should be posted on both sides of the road to restrict off-road travel.

i. Continue providing information on the asbestos hazard by distributing the Clear Creek Management Area map and other hand-out materials.

j. Dust suppressant - see Recreation m., n., Management Area-wide section. The initial application will be evaluated for continued use on an annual or semi-annual basis.

k. Seek a protective withdrawal for Clear Creek Canyon and the San Benito Mountain Natural Area from mining activity (locatable mineral entry). At present, a petition is being prepared for filing of a protective withdrawal (including a full mineral report and environmental analysis). Although it is considered crucial to management of the ACEC, the criteria for evaluating withdrawal requests is stringent and there is no guarantee of approval (see Map 2B).

l. Defer any intensive study or rehabilitation efforts on the abandoned asbestos mine areas until other agency task force studies (EPA et al.) are completed in order to avoid duplicative or conflicting efforts. Coordinate with these agencies to extent possible.

m. Cooperate with the University of California Experiment Station to establish small-scale soil/plant study plots to investigate plant adaptability and nutritional requirements for rehabilitation purposes.

2. Watershed Concerns

a. Install additional vehicle barriers to close three hill climbs that lead directly into Clear Creek (see Map 2C and Appendix 6).

b. Re-route one badly gullied and eroded trail that leads directly into Clear Creek (see Map 2C and Appendix 6). The rerouted trail will be located on the contour with reduced grade and erosion control structures.

c. Stabilize/rehabilitate severely eroding trails, hill climbs, and naturally barren areas in Clear Creek Canyon (see Map 2C and Appendix 6). Stabilization methods include building rock walls at the toe of slopes leading directly into Clear Creek (rock armoring), contour trenching, terracing, gully plugs, and water diversions. Material for rock walls will come from Clear Creek Canyon to the extent possible, however no excavation will be allowed in the stream channel itself.

d. Construct four silt catchments (one earth dam and three rock gabion structures) in Clear Creek Canyon (see Map 2C and Appendices 6 and 9). Disposal site(s) for trapped material will be identified and evaluated during the project planning stage.

e. Initiate a regular planned maintenance program for major roads and trails in the Clear Creek Management Area (e.g., waterbar construction and outsloping). See Appendix 6.

f. Protective withdrawal - same as Asbestos Hazard k. (see Map 2B).

g. Clear Creek Road and severely eroding hill climbs - see Recreation n., o., Management Area-wide section.

3. Rare, Threatened, or Endangered Plant Habitat

a. Rehabilitate (by ripping and/or pitting) two potential habitat areas in Clear Creek Canyon for the San Benito evening primrose (see Map 2C and Appendix 7). Seed would be collected from nearby populations and broadcast seeded over these areas (approximately one-half acre each) subsequent to seedbed preparation.

b. Initiate an ecological study of the San Benito evening primrose to determine habitat requirements. Include the rehabilitated areas (from a. above) in the study (see Appendix 7).

c. Implement a modified fire suppression agreement with CDF for the San Benito Mountain Natural Area (see Appendix 11).

d. Protective withdrawal - same as Asbestos Hazard k. (see Map 2B).

e. Monitor known populations and potential habitat on a yearly basis. Protect new populations as they are discovered.

4. Hobby Gem and Minerals

   a. Protective withdrawal - same as Asbestos Hazard k. (see Map 2B).

   b. Seek a site-specific protective withdrawal for other known collecting areas outside Clear Creek Canyon from locatable mineral entry (approximately 1-2 acres in the vicinity of each locale). See Map 2B for the general locations of these areas. The withdrawal would be subject to valid and existing claims. A separate mineral report and environmental analysis will be prepared for the withdrawal application.

   c. Encourage mineral collecting groups to purchase or lease mining claims. Develop cooperative agreements with mining claimants to allow for management of co-existing gem or minerals by BLM or collecting groups.

5. Unique Soils

   a. Identify and protect discrete soil plots (the aggregated total of these plots would not exceed a total of 50 acres maximum) in areas bordering the San Benito Mountain Natural Area, in the "Bald Hills," and at a lower elevation in Clear Creek Canyon near the Jade Mill (see Map 2B). Discrete plots within these areas and the San Benito Mountain Natural Area will be identified and studied by scientists from the academic community.

IMPLEMENTATION

Appendices 2 through 9 contain descriptions of projects, priorities for implementation, units, cost estimates, etc., as they relate to the planned actions. Costs shown are 1985 costs. All proposals are subject to further analysis on a project specific basis to determine feasibility, design criteria, etc.

FUNDING AND MAINTENANCE

Funding for project proposals will come from a variety of sources. In some cases, funding will be provided through direct appropriation as a part of the normal budget (Annual Work Plan) process. County fine monies, California

Environmental License Plate funds and other sources will be utilized to the extent possible for wildlife projects. "Green Sticker" funds for recreation projects will be utilized to the extent possible, including operations and maintenance. Other funding sources, such as State Grants for watershed improvements projects will also be explored.

The California Department of Fish and Game and sportsmen's groups will be relied on heavily for wildlife project maintenance. ORV and other recreation user groups will be relied on to provide support for project maintenance as well as implementation.

MONITORING (Evaluation/Revision)

This plan may be modified if data from monitoring or information from other sources reveals a need for change. All planned actions are subject to review by the Area Manager. Modification or revision of the wildlife habitat management portions of this plan will be agreed upon by the Bureau of Land Management and the California Department of Fish and Game. Appendix 10 contains monitoring strategies for this management plan.

DRAFT CLEAR CREEK

ENVIRONMENTAL ASSESSMENT

CHAPTER 1

INTRODUCTION

This draft environmental assessment analyses the impacts of three alternatives to determine which alternative best resolves the issues--based on the principles of multiple use, sustained yield, and maintenance of environmental quality. Each alternative represents a different level of resource management for the area.

All alternatives are consistent with the Hollister RMP which was subject to full public participation by distribution of a Draft and Final Environmental Impact Statement (EIS). The EIS analysed a range of alternatives from full protection to full production. The goal of this EA is to analyze site-specific impacts of the alternatives which are presented and recommend any further mitigation which may be necessary.

Site-specific project EAs may be required as this plan is implemented.

The purpose and need of this plan and environmental assessment are fully described in the Introduction to the Management Plan.

CHAPTER 2

ALTERNATIVES INCLUDING THE PROPOSED ACTION

Standard management practices directed by regulations and policy are applicable to all alternatives. Protection of soils, watershed, visual resources, air quality, and other resources is required by the Federal Land Policy and Management Act of 1976. Specific guidance for those measures are embodied in policy statements and regulations. In addition, compliance with specific legislation, such as the Endangered Species Act and the National Preservation Act, is required.

ALTERNATIVE 1 - PROPOSED ACTION

Management Area-Wide (Non-ACEC)

1. Cultural Resources

   a. Protect archaeological sites in the White Creek Archaeological District by maintaining the existing road closure (in lower White Creek Canyon) until such time as these sites are sufficiently evaluated.

   b. Initiate data retrieval (excavation) at three sites (see Appendix 2).

   c. Work with research institutions to the extent possible on data retrieval actions.

   d. Use fences or barriers where necessary to protect sites from human-caused or other disturbances.

2. Wildlife Habitat

   a. Install 15 guzzlers to provide water for deer, pigs, quail, and other wildlife (see Map 2B and Appendix 3).

   b. Fence portions of eight wet meadows in the Condon Peak area to preclude livestock grazing and vehicle use (one acre or less at each site). See Map 2B and Appendix 3.

c. Install rock barriers at Spanish Lake to protect the unique serpentine "vernal pool" vegetation from camping and vehicle use (see Map 2B and Appendix 3).

d. Initiate a rotational program of prescribed burning in the Sampson Peak and San Carlos-Bolsa areas as in Alternative 3, Management Area-wide section, Wildlife Habitat a.

e. Develop the Agua Buena spring site for the enhancement of wildlife habitat (see Map 2B and Appendix 3).

3. Recreation

a. Acquire and develop 160 acres of private land (Clear Creek II OHV Grant) at the entrance to Clear Creek Canyon for use as an ORV camping, staging, and trail riding area (see Maps 2C and 2D and Appendix 4). A nearby San Benito evening primrose site will be closed to camping and protected by vehicle barriers. Riparian areas and oak trees will be protected to the extent possible using barriers. Gravel and/or a dust suppressant will be applied to graded and leveled parking area surfaces to reduce erosion, soil disturbance, and dust generation. Maintain a fuelbreak around the area.

Provide an information kiosk near the main entrance (see Map 2C and Appendix 4). The kiosk would be located to encourage visitors to stop and view information provided. The kiosk would contain a map and information concerning:

- Asbestos health hazards (effects and ways to minimize exposure)
- ORV use designations
- Fire prevention
- Regulations
- Natural resources of the area
- Emergency assistance
- BLM Hollister Resource Area phone number and address

Other agency/user group endorsement of management strategies (also indicating that facilities have been provided using Green Sticker funds) will be incorporated into signing.

b. Develop the lower Jade Mill area as a non-ORV camping area (see Map 2C and Appendix 4). Oak trees will be protected to the extent possible using barriers. Gravel and/or a dust suppressant will be applied to graded and leveled parking area surfaces. Maintain a fuelbreak around the area.

Develop the upper Jade Mill area as an administrative site and ORV camping/staging area (see Maps 2C and 2E and Appendix 4). Development would consist of grading, leveling, barriers, and fuelbreak as above. The exact location is dependent on resolution of the existing millsite trespass. The area has the potential for more intensive development. Future development would consider a phased implementation to expand the capacity of the ORV camping/staging area to accommodate up to 300 vehicles (see Map 2F).

Provide facilities for resident caretaker(s) and visitor services specialist(s) at the administrative site:

- BLM base radio station
- Telephone (available for emergency or public use)
- CB shortwave base with emergency channel
- Heliport
- Emergency first aid facilities with hospital bed

c. Develop a trail system leading from camping/staging areas to back country trails (see Map 2C and Appendix 4). Each trail will be named and/or numbered and keyed to the Clear Creek Management Area map.

d. Provide a bulletin board at each camping/staging area with a summary of information contained in the entrance kiosk (also a location map indicating "You are here"). Each camp will be identified by name. Other agency/user group endorsement of management strategies (also indicating that facilities have been provided using Green Sticker funds) will be incorporated into signing.

e. Provide directional signs at all major road junctions, such as Mexican Reservoir, Spanish Lake, Sawmill Creek/Union Carbide Road, Sawmill Creek/Spanish Lake Road, and Condon Peak/Union Carbide Road (see Map 2B and Appendix 4). Make signs as vandal proof/resistant as possible (e.g., metal).

f. Post public/private land boundaries where trespass is a problem (see Map 2B and Appendix 4). Use brightly colored orange "carsonite" posts.

g. Acquire, through exchange or purchase, state lands and private inholdings in the Byles Canyon/Tucker Mountain, San Carlos Bolsa, and Joaquin Rocks areas, as well as the remainder of the management area. Concentrate on exchanges involving Fat City Cattle Co., Southern Pacific Land Co., and the state and/or Phillip Martin Ranch. Specifically, acquire the Spanish Flat area near Mexican Reservoir (see Map 2A and Appendix 4).

h. Develop vehicular (four-wheel drive) access from North Hill into the San Carlos Bolsa area (see Map 2B and Appendix 4).

i. Make minor modifications to existing vehicle use designations (see Map 2B) as a result of land tenure adjustments and to protect significant riparian and RTE plant and wildlife habitat.

j. Develop a one-half mile hiking trail to the Joaquin Rocks and a small, primitive campsite nearby (e.g., three tables). Subsequent to acquisition, 160 acres surrounding the Joaquin Rocks should be designated as an Outstanding Natural Area and Area of Critical Environmental Concern (ACEC). In the interim (prior to designation, which will require an RMP amendment), the area will be managed for its scenic and historical value with emphasis on providing hiking, hunting, and primitive camping opportunities. The boundary of the proposed Natural Area will be protected by vehicle barriers where necessary (see Map 2B and Appendix 4).

k. Develop cooperative management agreements with user groups to develop trail systems (adopt-a-trail), other project work, and volunteer patrols to the extent possible.

l. Provide a delegated law enforcement ranger and at least two visitor services specialists in the management area. Enter into a cooperative agreement with the state to provide back country patrols from the Martin Ranch SVRA (in areas of the Clear Creek Management Area that are adjacent to the Martin Ranch SVRA). Increase warden patrols by CDFG to the extent possible.

Area of Critical Environmental Concern (ACEC)

1. Asbestos Hazard

   a. Provide a vehicle washing facility (wash rack) at the main entrance to Clear Creek (see Map 2C and Appendix 5).

   b. Signing - See Alternative 1, Management Area-wide section, Recreation a., and d. Also provide asbestos hazard pamphlet/brochure to Bay Area motorcycle shops. Issue news releases highlighting the area's asbestos hazard at least twice annually. Provide asbestos warning signs at all main roads and trails entering the serpentine area.

c. Do not allow organized events between June 1 and September 30.

d. Camping - See Alternative 1, Management Area-wide section, Recreation a., and b.

e. Provide additional visitor services staff to provide increased awareness through personal contact (see Alternative 1, Management Area-wide section, Recreation 1.

f. Work with Cal Idria Corp. to develop a rehabilitation plan, including posting of a bond to assure that the plan is implemented. Work through San Benito County to request development of the plan as required under the California Surface Mining and Reclamation Act of 1975 (SMARA). The existing plan of operation does not include rehabilitation requirements.

g. Designate the asbestos mine areas as closed to off-road vehicle use on the Clear Creek Management Area (see Map 2B). Access for mining operations would be granted under 3809 plans of operations.

h. Post boundaries of asbestos mining areas as closed to off-road vehicle use, especially where trails lead to or through these areas. The main road through the Atlas Mine site should be posted on both sides of the road to restrict off-road travel.

i. Seek a protective withdrawal for Clear Creek Canyon and the San Benito Mountain Natural Area from mining activity (locatable mineral entry). At present, a petition is being prepared for filing of a protective withdrawal (including a full mineral report and environmental analysis). Although it is considered crucial to management of the ACEC, the criteria for evaluating withdrawal requests is stringent and there is no guarantee of approval.

j. Defer any intensive study or rehabilitation efforts on the abandoned asbestos mine areas until other agency task force studies (EPA et al.) are completed in order to avoid duplicative or conflicting efforts (coordinate with these agencies to extent possible).

k. Cooperate with the University of California Experiment Station to establish small-scale soil/plant study plots to investigate plant adaptability and nutritional requirements for rehabilitation purposes.

2. Watershed Concerns

   a. Install additional vehicle barriers to close three hill climbs that lead directly into Clear Creek (see Map 2C and Appendix 6).

   b. Reroute one badly gullied and eroded trail that leads directly into Clear Creek (see Map 2C and Appendix 6). The rerouted trail will be located on the contour with reduced grade and erosion control strutures.

   c. Stabilize/rehabilitate severely eroding trails, hill climbs, and naturally barren areas in Clear Creek Canyon (see Map 2C and Appendix 6). Stabilization methods include building rock walls at the toe of slopes leading directly into Clear Creek (rock armoring), contour trenching, terracing, gully plugs, and water diversions. Material for rock walls will come from Clear Creek Canyon to the extent possible, however no excavation will be allowed in the stream channel itself.

   d. Construct four silt catchments (one earth dam and three rock gabion structures) in Clear Creek Canyon (see Map 2C and Appendices 6 and 9). Disposal site(s) for trapped material will be identified and evaluated during the project planning stage.

   e. Initiate a regular planned maintenance program for major roads and trails in the Clear Creek Management Area (e.g., waterbar construction and outsloping). See Appendix 6.

   f. Protective withdrawal - same as Alternative 1, ACEC section, Asbestos Hazard i.

3. Rare, Threatened, or Endangered Plant Habitat

   a. Rehabilitate (by ripping and/or pitting) two potential habitat areas in Clear Creek Canyon for the San Benito evening primrose (see Map 2C and Appendix 7). Seed would be collected from nearby populations and broadcast seeded over these areas (approximately one-half acre each) subsequent to seedbed preparation.

   b. Initiate an ecological study of the San Benito evening primrose to determine habitat requirements. Include the rehabilitated areas (from a. above) in the study (see Appendix 7).

c. Implement a modified fire suppression agreement with CDF for the San Benito Mountain Natural Area (see Appendix 11).

d. Protective withdrawal - same as Alternative 1, ACEC section, Asbestos Hazard i. (see Map 2B).

4. Hobby Gem and Minerals

a. Protective withdrawal - same as Alternative 1, ACEC section, Asbestos Hazard i. (see Map 2B).

b. Seek a site-specific protective withdrawal for other known collecting areas outside Clear Creek Canyon from locatable mineral entry (approximately 1-2 acres in the vicinity of each locale). See Map 2B for the general locations of these areas. The withdrawal would be subject to valid and existing claims. A separate mineral report and environmental analysis will be prepared for the withdrawal application.

c. Encourage mineral collecting groups to purchase or lease mining claims. Develop cooperative agreements with mining claimants to allow for management of co-existing gem or minerals by BLM or collecting groups.

5. Unique Soils

Identify and protect discrete soil plots (the aggregated total of these plots would not exceed a total of 50 acres maximum) in areas bordering the San Benito Mountain Natural Area, in the "Bald Hills," and at a lower elevation in Clear Creek Canyon near the Jade Mill (see Map 2B). Discrete plots within these areas will be identified and studied by scientists from the academic community.

ALTERNATIVE 2 - ALTERNATE ACTION

This alternative includes all actions listed under Alternative 1 and the following:

Management Area-Wide (Non-ACEC)

1. Cultural Resources - same as Alternative 1, except do not maintain the road closure.

2. Wildlife Habitat - same as Alternative 1.

3. Recreation

   a. Pursue the acquisition of an easement for public access via the Union Carbide Road, the White Creek Road, or the Pine Canyon Road (see Map 3).

   b. Develop the Spanish Flat area for ORV camping/staging (see Map 3).

Area of Critical Environmental Concern (ACEC)

1. Asbestos Hazard - same as Alternative 1 (also see Alternative 2, Management Area-wide section, Recreation b.).

2. Watershed Concerns

   a. Construct two additional sediment catchments in lower Clear Creek Canyon near the Jade Mill (see Map 3).

   b. Install vehicle barriers to close all hill climbs and riparian areas within Clear Creek Canyon ("limited" area).

3. Rare, Threatened, or Endangered Plant Habitat - same as Alternative 1.

4. Hobby Gem and Minerals - same as Alternative 1.

5. Unique Soils - same as Alternative 1.

ALTERNATIVE 3 - PRESENT MANAGEMENT (NO ACTION)

Management Area-Wide (Non-ACEC)

1. Cultural Resources

   Protect sites and initiate data retrieval on a case-by-case basis.

2. Wildlife Habitat

   Continue and/or implement a rotational program of prescribed burning in the Condon Peak, Byles Canyon, and Goat Mountain areas (see Map 4A). Burn approximately seven percent per year (average) in scattered spots and patches.

3. Recreation

a. Develop six camping/staging areas in Clear Creek Canyon. Development consists of leveling, application of a dust suppressant, installation of three vault toilets (in addition to four existing), and installation of barriers around use areas to protect vegetation (see Map 4B).

b. Redesign and grade the Clear Creek Road to improve winter access and reduce erosion. Install 10 concrete stream crossings and apply a dust suppressant on the road surface (see Map 4B).

c. Install vehicle barriers in Clear Creek Canyon and the San Benito Mountain Natural Area to protect closed areas, severely eroding hill climbs, and riparian areas and endangered plants (see Maps 4A and 4B).

d. Install "Open," "Limited," and "Closed" area signs to clarify zones of vehicle use.

e. Patrol the area at least once a week. Maintain the cooperative law enforcement agreement with San Benito County. Maintain fire prevention patrols.

f. Maintain the information bulletin board at the entrance to Clear Creek Canyon and the Mexican Reservoir intersection (see Map 4A).

Upgrade interpretive signs at barrier locations.

Continue providing an interpretive map/pamphlet (Clear Creek Management Area Map).

Maintain existing directional signs at certain major road junctions (see Map 4A).

g. Identify mining-related and other public hazards during regular patrols and eliminate or mitigate as soon as possible.

h. Identify and resolve mining-related trespasses with priority given to those cases where conflicts are occurring with visitor use and safety.

<u>Area of Critical Environmental Concern (ACEC)</u>

1. Asbestos Hazard

a. Signing - see Alternative 3, Management Area-wide section, Recreation f.

b. Visitor services - see Alternative 3, Management Area-wide section, Recreation e. (awareness is conducted as a part of regular patrols).

c. Asbestos information is provided on the Clear Creek Management Area map/pamphlet and other hand-out materials. Asbestos hazards are highlighted in all news releases for the Clear Creek area. Warning signs would be maintained at the main entrance, New Idria entrance and along the road above Salinas Ramblers Motorcycle Club property (see Map 4A).

d. Dust suppressant - same as Alternative 3, Management Area-wide section, Recreation a. and b. The initial application would be evaluated for continued use on an annual or semi-annual basis.

2. Watershed Concerns

a. See Alternative 3, Management Area-wide section, Recreation b.

b. See Alternative 3, Management Area-wide section, Recreation c.

c. Maintenance needs (erosion control, etc.) are identified as a part of regular patrols and monitoring.

3. Rare, Threatened, or Endangered Plant Habitat

Monitor known populations and potential habitat on a yearly basis. Protect new populations as they are discovered.

4. Hobby Gem and Minerals

No protective withdrawal would be made specific to the protection of hobby gem and mineral collecting areas. Collecting areas would be protected to the extent possible under the 3809 Regulations, in submitted plans of operation, which would be required within the ACEC, and by cooperative agreements or Memoranda of Understanding (MOUs) with mining claimants.

5. Unique Soils

Specific areas would not be set aside or protected outside the San Benito Mountain Natural Area and existing exclosures within the ACEC.

CHAPTER 3

AFFECTED ENVIRONMENT

The Hollister RMP/EIS (1984) and Clear Creek Off-Road Vehicle Designation and EA (1981) contain in-depth discussions of the environment of the management area. The following section is restricted to those elements of the environment likely to be impacted by the proposed action or alternatives.

1. Topography and Climate

Elevation varies from about 2,000 feet to over 5,000 feet. The highest peak in this portion of the Diablo Mountain Range is San Benito Mountain, elevation 5,241 feet.

Slope varies from 30 percent to 70 percent. Steep, bare slopes are surrounded by brush-covered slopes with occasional rock outcrops.

Weather is hot and dry in the summer and cool and wet in the winter. Precipitation, mostly in the form of rain, occurs almost entirely from November to May. Average rainfall is 17 inches per year. Rainfall intensity can be as much as one inch per hour; intensities of 3.75 inches in six hours and 7.80 inches in 24 hours have been recorded. These high-intensity storms can be expected to occur about one in every 100 years.

Summer temperatures occasionally exceed 100° F. Winter temperatures frequently fall below freezing with snow common at the higher elevations.

2. Geology and Minerals

The ACEC is defined by a northwest-trending serpentine (ultramafic) body, 3 to 5 miles wide and 15 miles long. The serpentine mass is highly sheared with the exposed rock being made up of small chips and plates which are generally slickensided. Locally, there are residual blocks of ultra basic rocks which have been only moderately serpentinized, as well as areas which resisted the shearing stresses and remained as bodies of moderately fractured serpentine. The serpentine rocks contain significant amounts of asbestos mineralization, small bodies of silicacarbonate rock, and minor concentrations of magnesite and chromite.

The serpentine plug body in the Clear Creek area is of Jurassic age and is rimmed chiefly by older Jurassic Franciscan group rocks, the younger Cretaceous Panoche formation sedimentary rocks and recent sediments. These deposits, found primarily outside of the ACEC are highly susceptible to the process of erosion.

The Franciscan group is the oldest group of rocks in the area and consists primarily of arkosic sandstone with minor shale and conglomerate interlayered with basaltic lavas and associated lenses of chert. The Panoche formation consists mainly of interlayered shale and sandstone.

The area is considered highly mineralized. About 70 percent of the mining claims in the Resource Area occur here (see Map 2A). As of June, 1985, there were about 1,000 mining claims located within the area. The only commercial mineral production presently occurring on public land is asbestos from one large open pit mine (Cal Idria - Joe Mine). Sub-economic reserves include asbestos, mercury, chromite, magnesite and gems. Undiscovered resources include oil and gas, geothermal, and gold. Within the area, 2,598 acres have been segregated under the Classification and Multiple Use (C&MU) Act from locatable mineral entry (1,488 acres in the San Benito Mountain Natural Area, 1,031 acres in Clear Creek Canyon, and 79 acres along the San Benito River). Effective September 1, 1985, all C&MU segregations in the State of California are scheduled for lifting in their entirety.

3. Soils

Two kinds of soils have been identified within the San Benito County portion of the management area: those developed from materials derived from ultramafic (serpentine) rock and those developed from materials derived from sedimentary rock. Henneke and Gaviota soils are dominant in the MA. Henneke soils found in the ACEC area are developed from materials derived from ultramafic rock that is also high in asbestos fibers. Gaviota soils found within the rest of the area do not contain asbestos. Both Henneke and Gaviota soils are prone to severe water erosion, primarily due to steep to very steep slope gradients. Henneke soils are low in fertility due to nutrient imbalance. Barren areas, devoid of vegetation, comprise about five percent of the management area. Gaviota soils are more productive and lack these barren areas typical of the ultramafic-derived soil.

Erosion on the steep to very steep unstable barren areas is severe, primarily due to geologic (natural) erosion. Soil survey maps show that present motorcycle high-use areas were severely eroding in 1955, prior to the influx of ORVs. ORV use contributes to accelerated erosion; however, the amount of increase is not known.

The soils in the western Fresno County portion of the Management Area are currently being mapped by the USDA, Soil Conservation Service.

4. Vegetation

The flora of the area can be separated into two basic groups: vegetation of soils derived from serpentine (ultramafic) rock within the ACEC, and vegetation derived from sedimentary rock within the rest of the area. The vegetation of the management area has been extensively described in previously referenced planning documents.

Some areas within the ACEC are almost utterly devoid of vegetation except for the diminutive Brewer's jewel weed (Streptanthus brewerii). Serpentine vegetation consists mainly of a complex of chaparral species such as leather oak (Quercus durata) that are adapted to the unusual soil conditions. The non-serpentine vegetation includes typical mixed chaparral, chamise chaparral, oak woodland, oak savannah, and annual grassland/shrubland vegetation, depending on soils, slope, aspect, and precipitation.

Wildfire history and potential have also been discussed in other documents. Basically, the potential for a large wildfire is quite high throughout the area but is much greater in the non-serpentine areas.

Tree cutting is causing a significant impact to vegetation, especially in Clear Creek Canyon.

5. Air Quality

The presence of airborne asbestos dust, a known carcinogen, presents a serious air quality problem in the serpentine (ACEC) portion of the Clear Creek Management Area. Two studies conducted by the University of California (Murchio, 1978 and Popendorf, 1979) found that the vast majority of airborne asbestos dust in the Clear Creek area is generated by human activities, primarily vehicle use. The studies determined that the type of asbestos at Clear Creek (chrysotile) is known to be hazardous to human health. Other major points of the studies are as follows:

(1) The dust clouds produced by vehicles dissipate rapidly. Although background levels of exposure were about one-tenth the average exposures of riders, those levels can be increased from 3 to 10 times by nearby vehicle use.

(2) People who have used the area over the past few years probably will not develop an abnormal disease pattern. However, continued exposure could cause detectable results in some individuals.

(3) Exposure levels of riders were occasionally above OSHA occupational exposures for short-term exposure. However, when this measurement is prorated over a 40-hour work week, most exposures were far below OSHA's average working-lifetime permissible exposure limits.

(4) Users continue to be exposed to asbestos fibers which they carry home on their clothes and vehicles (mud from vehicles dries and is then deposited on driveways and neighborhood streets).

(5) Hazard is greatest when soil moisture is below three percent, generally from late spring to early fall.

(6) Riding behavior can significantly affect exposure levels.

The issue of asbestos exposure at Clear Creek was thoroughly discussed and considered during the ORV designation process in 1981 and again in the Hollister RMP/EIS in 1983-1984 through public meetings and mailings. The overwhelming public response was opposed to closure of the Clear Creek area; people felt that individuals should be able to make their own decisions concerning continued exposure to the area's asbestos. BLM posted asbestos hazard warning signs at all public access roads in 1977. Visitors are given handouts on asbestos hazards and ways to minimize exposure. Maps are available showing the location of the hazardous asbestos area. This information is also posted on bulletin boards near public access roads.

Very few visitors have been observed wearing respirators to minimize exposure, as recommended on BLM handouts. Most ORV enthusiasts avoid use of the area during the summer months probably because of the eye irritation that results from riding in the dust.

6. Water Resources

Natural erosion has resulted in high sediment loads in various drainages within the area. The region contains outcrops of extremely weathered, fragmented, and decomposed serpentine rock containing chrysotile asbestos minerals. These bare outcrops lack soil or vegetative cover and are often on steep to very steep slope gradients of 30-50 percent or more. Sheet and rill erosion occur during rainfall and runoff events with sediment (including asbestos fibers) entering the stream channels. The extent of the problem is directly proportional to the storm's magnitude. The degree of that proportionality is unknown.

Mineral exploration and extraction has been a major surface-disturbing activity within the area. Most of the road and trail construction in the area is the result of mineral exploration. Mine spoils containing asbestos from the Cal-Idria Joe Pit (located between Santa Rita Peak and Condon Peak within Township 18 South, Range 12 East, Section 25 Mount Diablo Base Meridian) have been and are currently being carried by seasonal rain runoff into the San Benito River and downstream toward Hernandez Reservoir.

The semi-improved and unimproved network of county-maintained roads and mining-exploration roads and trails are subject to very high runoff and erosion. In the 1981-82 and 1982-83 seasons, streams washed out roads entirely in some locations, thus contributing large amounts of sediment downstream. Numerous unimproved stream crossings throughout the area also contribute to the resuspending and downstream movement of sediment.

Off-road vehicle use is another source of sediment production. Soil loss has been noticeable to some degree in vehicle use areas. However, the amount of increase as compared to natural erosion is unknown.

The San Benito River and Clear Creek are the main drainages within the San Benito County portion of the management area which flow into Hernandez Reservoir. Water from the reservoir is used for groundwater recharge for northern San Benito County. Both the natural high rates of erosion and man's activities within the reservoir watershed appear to contribute significant amounts of sediment to the reservoir. The Clear Creek drainage area comprises 18.9 percent of the Hernandez Reservoir watershed. The estimated erosion rate for the Clear Creek watershed is approximately 0.8 acre feet per section per year. Of this about 45 percent is from stream bank scour, 15 percent from landslides and mass movement, and 40 percent from sheet and gully erosion.

Clear Creek Canyon has the highest concentration of public use within the management area. The primary erosion concern in the canyon is centered on the "Bald Hills"--a major sediment contributor (both natural and man caused). Other principal erosion concern areas are hill climbs leading directly into the stream, loss of riparian vegetation, stream bed disturbance by vehicles, eroding roads and trails, and undercutting of side slopes by the stream.

White Creek, in the Fresno County portion of the Clear Creek Management Area, is a tributary of Los Gatos Creek which in turn joins the Arroyo Pasajero near Coalinga. Excess runoff during peak flows from the Arroyo Pasajero transport suspended

sediments including asbestos fibers into the San Luis Canal (California Aqueduct). Both the U.S. Bureau of Reclamation and the California Department of Water Resources have conducted studies concerning the flooding and sediment problems in the Arroyo Pasajero watershed. The U.S. Environmental Protection Agency (EPA) is currently assessing the extent of the contribution of asbestos from two abandoned asbestos mines in the area--the Atlas Mine and Coalinga Mine (the former of which is located on public land).

7. Rare, Threatened, or Endangered Plants

There are eleven known occurrences or populations of the San Benito evening primrose (Camissonia benitensis) within the ACEC. Eight of the eleven sites are located on public land. Ten of the sites are in the Clear Creek drainage, and one is found along San Carlos Creek in the San Benito Mountain Natural Area. Potential habitat for this species is found on serpentine alluvial terraces along Clear Creek, San Carlos Creek, Sawmill Creek, and the upper San Benito River. It is poorly understood exactly why the plant is limited to existing locations and why it does not occur in other locations with similar habitat characteristics. All known populations on public lands have been protected by fenced exclosures with the exception of one and a portion of another (these will be protected by barriers to be installed as a part of the on-going Clear Creek I OHV Grant implementation in fiscal year 1985). The uppermost population on private land is located on the proposed Clear Creek II OHV Grant acquisition. This site has already been impacted by camping and would be protected by vehicle barriers. The proposed camping/staging area development would be located one-quarter of a mile from any known population of C. benitensis. The San Benito evening primrose was officially listed by the U.S. Fish and Wildlife Service as threatened on March 14, 1985.

Several other plant species occur within the ACEC that are candidates for Federal listing. As such, they are considered sensitive species by the BLM. Rayless layia (Layia discoidea) and talus fritillary (Fritillaria falcata) are serpentine endemics, the former occurring in a number of locations ranging from Clear Creek to Spanish Lake, the latter restricted to one location in the Natural Area.

A brief description of the unique conifer forest community in the San Benito Mountain Natural Area is contained in Appendix 11.

8. Hobby Gem and Minerals

Hobby gem and mineral collectors are drawn to the Clear Creek area by the presence of over 100 semi-precious minerals and gemstones. This is one of the most highly mineralized areas in California. Collectable minerals include jadeite, cinnabar, andradite, tremolite, melanite, topazolite, barkevikite, clinochlore, vesuvianite, artinite, natrolite, neptunite, and benitoite. Some minerals such as benitoite are extremely rare and the Clear Creek Management Area is practically the only place in the world where they can be found.

Highly mineralized areas generally occur along faults and inclusions/intrusions in and around the serpentine body. Except for Clear Creek Canyon which is presently segregated from mineral entry under the C&MU Act, nearly all known hobby gem and mineral locations are covered by private mining claims and thus are legally restricted from management by BLM for hobby collecting.

Hobby gem and mineral collecting (or rockhounding as it is commonly referred to) accounts for about five percent of the total recreation use in the area (15,000 visitor hours per year). Rockhounds camping in Clear Creek Canyon frequently complain about ORV play riding in camp areas.

9. Unique Soils

The management area contains extensive areas of serpentine soils which are of great interest to the scientific community. These soils are moderately deep to deep, have loamy textures and enough rainfall to support vegetation. However, many thousands of acres are barren. Some theorize that this is due to low inherent fertility, low calcium/magnesium ratios and the inherent presence of possible toxic elements. Only the soils within the San Benito Mountain Natural Area and existing exclosures outside the Natural Area are now afforded protection for possible future scientific study. The ACEC is of particular interest to scientists due to the wide variety of soil located at different elevations and in transition zones between vegetated and barren areas. Such sites would offer scientists an opportunity to determine why some areas are barren and others are well-vegetated, which would also have applicability for rehabilitation of disturbed serpentine areas.

10. Cultural Resources

Twenty-five archaeological sites have been previously recorded within the Clear Creek Management Area. A wide variety of site types are represented, including lithic

scatters, bedrock mortars (milling stations), rock shelters, caves, rock art, and occupation sites containing midden deposits and housepits.

The majority of the recorded sites are located in the southern portion of the management area where the floral and faunal resources provide an environment more conducive to aboriginal occupation. These sites tend to be more complex than those known in the vicinity of Clear Creek Canyon and have a much higher degree of integrity. Impacts to sites in this area have been primarily a result of pothunting, cattle grazing, and camping activities. Several sites have been recorded in Clear Creek Canyon; however, impacts from ORV use, road construction, and camping activities have made most of these sites virtually unidentifiable.

Many additional archaeological sites are likely to be present in the unsurveyed portions of the management area. Areas containing oak-grassland vegetation, perennial water, and/or sandstone boulder outcrops appear to have the most potential for site occurrence. The Cantua Creek, San Carlos Bolsa, and Joaquin Rocks areas are especially sensitive. Adverse impacts to sites in these areas are most likely a result of cattle grazing, pothunting, and vandalism.

This portion of the Coast Range is very poorly documented archaeologically. Only a small portion of the management area has been surveyed and virtually no excavation has been undertaken in the region. It is felt that the sites present in the Clear Creek Management Area may provide valuable information regarding the prehistory of this little known area. Substantial subsurface deposits remain at several sites which may be useful in establishing temporal and/or cultural affiliations, as well as addressing other important research questions as outlined in BLM'S Class I Overview document (Breschini et al., 1983).

11. Wildlife

Public lands in the management area provide habitat for portions of two deer herds--the Avenal herd in Fresno County and the San Benito herd in San Benito County. These herds are composed of resident California mule deer (Odocoileus hemionus californicus) and Columbian black-tailed deer (O. hemionus columbianus). The two sub-species overlap and hybridize along the deer herd boundaries. Deer populations are higher on the more productive, non-serpentine portions of the area (Condon Peak, Byles Canyon, Joaquin Rocks). Spot kill data for 1962-1982 is summarized in Table 1. Current deer populations in the area (based on the buck kill representing five percent of the total population) are in the neighborhood of 1,500 animals.

From 1981 to the present, about 650 acres were crushed (mechanically treated) and 700 acres burned in the Condon Peak area. Approximately 200 acres of crushed brush is ready to be burned in the fall/winter of 1985/1986.

TABLE 1

BUCK KILL - CLEAR CREEK MANAGEMENT AREA

Year	San Benito Co. Portion	Fresno Co. Portion	Total
1962	67	-	-
1963	65	-	-
1964	66	33	99
1965	75	45	120
1966	70	38	108
1967	47	45	92
1968	76	42	118
1969	54	33	87
1970	26	16	42
1971	37	19	56
1972	55	50	110
1973	50	39	89
1974	60	49	109
1975	52	29	81
1976	71	48	119
1977	54	24	78
1978	37	24	61
1979	19	14	33
1980	35	28	63
1981	41	43	84
1982	31	35	66

In addition, approximately 250 acres were burned in the Byles Canyon area in 1982. No major wildfires have occurred in the management area since 1955 or earlier. Prescribed burning projects in the Condon Peak and Byles Canyon areas have been part of a continuing program initiated for the primary benefit of improving habitat conditions for deer and other wildlife. Habitat conditions in other portions of the management area are mostly poor due to the large expanses of over-mature chaparral brushfields. The numerous, small openings created by burning of mature brush have provided increased forage benefits (young browse) for deer in the immediate area. Table 2 summarizes spot kill data in the Condon Peak area for 1980-1984. In the absence

of other contributing factors, such as favorable climatic conditions, it appears that the prescribed burning program there has led to an increase in the deer population. This came at a time when the rest of the herd (at least the Fresno County portion) appeared to be declining.

TABLE 2

BUCK KILL - CONDON PEAK AREA*

Year	San Benito Co. Portion	Fresno Co. Portion	Total
1980	1	3 (2.2% of W. Fresno Co. total)	4
1981	0	8 (4.8% of W. Fresno. Co. total)	8
1982	3	6 (4.7% of W. Fresno Co. total)	9
1983	3	5 (5.2% of W Fresno Co. total)	8
1984	2	12 (11.5% of W. Fresno Co. total)	14

*Based on tag returns which could be definitely attributed to the Condon Peak Area.

Valley quail (Lophortyx californicus) occur throughout the management area with highest densities in the grassy openings within the chaparral and the annual grassland/shrubland areas in the drier eastern portion of the management area (Joaquin Rocks). Chukar partridge (Alectoris graeca) occur in the Joaquin Rocks area and a few have even been sighted in the Condon Peak area. A small release of mountain quail (Oreortyx pictus) was made near Santa Rita Peak some years ago and have apparently spread, in small numbers, throughout much of the management area (they have been sighted or heard in the Condon Peak and Sampson Peak areas).

Wild pigs also occur throughout much of the area. The term wild pig encompasses wild boar and feral hogs, both varieties of Sus scrofa. Hunting for wild pigs may be done year-round and has become quite popular in the management area. Wild pigs are restricted almost entirely to the non-serpentine portion of the management area. They are highly nomadic and opportunistic

feeders and may be "here today, gone tomorrow" from any one particular area. There are no good population figures but a conservative estimate would be several hundred animals at any given point in time within the MA. No significant environmental conflicts are attributable to wild pig populations in the area.

Mountain lions (Felis concolor) also occur in the area; however, the size of the population is unknown. Golden eagles (Aquila chrysaetos) have been signted throughout the area; however, nest sites are unknown. Prairie falcons (Falco mexicanus) also occur in the area and several territories (nest sites) are known to exist in the vicinity of Joaquin Rocks and Picacho Peak.

12. Recreation

Recreation use in the Clear Creek Management Area can be divided into three main categories: off-road vehicle (ORV) use, hunting, and hobby gem and mineral collecting. Total recreation use for 1984 was estimated at 420,000 visitor hours, with the majority attributed to ORVs. Annual use declined steadily from 1977 until 1982, then increased back to the 1977 level by 1984. Use data is not available prior to 1977.

ORV use accounts for about 70 percent of the total. Most of this is from dirt bike enthusiasts from the San Francisco Bay area. Two motorcycle enduros have been held annually for the past several years, including the Quicksilver National Enduro. The area is also popular with four-wheel drive enthusiasts. The 12th annual "Molina Ghost Run" four-wheel drive tour was held in 1985 with over 200 vehicles participating.

Staging for ORV events has usually been provided on the Salinas Rambler Motorcycle Club's private property and adjacent public lands.

Dirt bike, four-wheel drive, and other off-road vehicle enthusiasts enjoy riding on the Bald Hills which make up about five percent of the total area of the Clear Creek Management Area. These bald hills are interconnected by an estimated 1,000 miles of vehicle routes which were developed during mineral exploration over the past 30 years. Mineral exploration and development has also left many open pits and shafts which are hazards to visitors.

The area has a Recreation Opportunity Spectrum classification of semi-primitive motorized. A relatively unconstrained form of recreation is available here which is rare in this region of central California.

The area most heavily used for ORV camping and staging is the environmentally sensitive Clear Creek Canyon bottom, within the hazardous asbestos area. Conflicts with the adjacent property

owner have occurred due to trespass on private property, particularly when severe winter storms washed out the Clear Creek county road between the Coalinga Road and public land. Most ORV use occurs from September to May when winter rains keep dust production down.

Hunting for deer and wild boar accounts for about 25 percent of the total recreation use. Deer season runs from August through September with use heaviest early in the season. Hunting for wild boar occurs throughout the year and this sport is increasing dramatically in popularity. The increase in this activity accounts for much of the overall increase in recreation use which has occurred since 1982. It is also causing a shift in use from the Clear Creek Canyon to outlying areas. Based on vehicle counts and visitor surveys, percentage of recreation use outside of the Clear Creek Canyon increased from 20 percent to 35 percent between 1977 and 1984. The best areas for hunting are the non-serpentine areas, where habitat is better for wildlife. Though hunters and ORV enthusiasts tend to be separated by season of use and areas of use, some conflicts still occur between these groups.

Many serious problems have been intensified by BLM's lack of an adequate visitor service patrol presence in the area. Usually only one patrol per weekend is conducted in the Clear Creek area. Visitor assistance is generally not readily available for search and rescue, information, and other important services.

BLM conducted or assisted in six major search and rescues in 1984. Over the same period, two fatalities occurred in medical emergencies which lacked BLM support.

Violations recorded in 1984 include the following: poaching, vehicle use in closed areas, theft, vandalism, cutting of live vegetation, shooting in camp areas, lack of Green Sticker registration, spark arrestor, illegal drug possession, disorderly conduct, and littering. Felony violations recorded recently include homicide and sale of automatic weapons. BLM personnel in the Hollister Resource Area lack law enforcement authority; however, a cooperative law enforcement agreement established with the San Benito County Sheriff provides for periodic patrols by sheriff's deputies on BLM lands in the MA.

Facilities in the area include pit toilets and garbage bins in the Clear Creek Canyon. Vehicular access is provided by the Clear Creek county road from the Coalinga road on the west side, and through New Idria from the north. Foot access is available at the Fresno-San Benito county line on the Coalinga-Los Gatos Road. Private vehicular access is available to adjacent property owners via the Atlas Mine road, Duckworth Canyon road, Union Carbide road, Salinas Ramblers road, and Pine Canyon roads.

13. Social and Economic

There are eleven grazing leases shown in Table 3 on the periphery of the Clear Creek Management Area.

TABLE 3

GRAZING LEASES WITHIN THE MANAGEMENT AREA

Allotment Number and Name	Location	Public Land Acres	Preference AUMs	Season of Use	Class of Livestock
4398 Adobe Ranch	San Carlos Bolsa	2,082	158	12/1-5/31	C
4414 Martin Ranch	San Carlos Bolsa	7,135	1,801	12/1-3/20	Y
4374 Martin Ranch	Joaquin Rocks	4,040	389	3/1-7/31	Y
4308 Birdwell	Joaquin Rocks	4,162	333	3/1-2/28	C
4401 White Creek	White Creek	1,920	126	2/15-8/15	C
4359 Quarter Circle	Condon Peak/ White Creek	3,348	155	3/1-2/28	C
4379 Los Gatos Creek*	Condon Peak	4,660	1,051	1/1-5/31	Y
4301 Akers	Picacho Peak	2,458	300	3/1-2/28	C
4418 Akers	Picacho Peak	409	40	3/1-2/28	C
4410 Hernandez	Byles Canyon/ Tucker Mtn.	5,797	468	11/1-4/30	Y
4411 Ashurst	Byles Canyon/ Tucker Mtn.	11,004	1,924	11/1-4/30	Y

* Under Allotment Management Plan (AMP)
C = Cattle (cow/calf)
Y = Yearlings (steers)

In addition to grazing lessees, who own property adjacent to or within the MA, there are a number of smaller private landowners who also own lands adjacent to or intermingled with the public lands in the MA.

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This chapter provides scientific and analytic evaluation of the alternatives, mitigating measures developed in response to identified issues, and any unavoidable adverse impacts which cannot be mitigated.

The impact analysis will concentrate on those resources described in Chapter 3 that will be subject to the most significant impacts. In some cases limitations on impact analysis occurred due to a lack of data; in such instances, knowledge of the area and professional judgement were used to identify potential impacts. Impacts are defined as the difference between conditions with the action and conditions which would prevail at the same time with the Present Management (No Action) Alternative.

The analysis emphasizes issue-related impacts.

A cumulative summary of impacts follows the analysis of each alternative. This section summarizes the cumulative impact of each alterntive with respect to the environmental elements described in Chapter 3 (Affected Environment).

ALTERNATIVE 1 - PROPOSED ACTION

Management Area-Wide (Non-ACEC)

1. Cultural Resources

    a. There would be a short-term loss of recreational opportunity in the form of convenient (motorized) access to lower White Creek Canyon, mainly for hunting.

b,c,d. Excavation would result in a negligible impact to soil and vegetation (less than an acre total for all sites). Fence or barrier construction could result in negligible impacts to soils and vegetation. Excavation would damage site integrity, but would enhance the cultural data base and provide valuable information regarding the prehistory of the area.

2. Wildlife Habitat

a. Installation of 15 guzzler units would result in minor disturbance to soil and vegetation (about one-tenth of an acre total). Construction of protective fences would result in negligible disturbance to soil and vegetation. About three acres total would be fenced and precluded from grazing. Visual impacts would be negligible. Each unit would provide a yearlong source of water in areas where water is currently a limiting factor to wildlife. Deer and quail would be the primary species benefitted, as well as a variety of non-game species. Each big game guzzler would provide water for as many as 60-80 deer through the critical dry period of late summer and fall.

b. Fencing of eight wet meadows in the Condon Peak area would protect significant riparian habitat from cattle grazing and vehicle travel. Approximately two acres would be precluded from grazing (or about six AUMs) within the Los Gatos Creek Allotment. Fence construction would result in negligible impacts to soil and vegetation.

c. Placement of rock barriers would result in slight short-term disturbance to soil and vegetation from use of heavy equipment (dump truck and backhoe). Protection of the vernal pool vegetation would also benefit wildlife, particularly amphibians.

d. The impacts of developing the spring would result in negligible impacts to soil and vegetation (from digging the pipeline and installing the trough). The impacts of periodically burning the tules in the pond would be negligible on air quality (less than one-quarter acre of vegetation). Burning the tules would clear old, rank growth and create younger, succulent vegetation. This would be beneficial to wildlife, particularly deer, quail, and many non-game species.

e. The relative impacts of prescribed burning have been thoroughly discussed and analysed for nearby areas in the RMP/EIS and programmatic EA for the San Benito County Fire Management Plan. Prescribed burning in the Sampson Peak and San Carlos Bolsa areas will be further analysed (if necessary) in a project-specific burn plan and EA at a later date.

3. Recreation

a. Acquisition and development of the entrance parcel would provide an alternative area for camping and staging off the hazardous asbestos or serpentine area.

It would help reduce conflicts with adjacent property owners by eliminating trespass that currently occurs on this parcel. It would, therefore, help to perpetuate access to the Clear Creek area.

Shifting camping and staging activities to the non-serpentine area would also help to moderately reduce the damage to potential habitat for the San Benito evening primrose as well as the threat of disturbing known habitat (fenced exclosures). Both potential and known sensitive (candidate) plant habitat in Clear Creek Canyon would also be benefitted.

Construction (grading and leveling) would result in slight short-term impacts to air quality (dust) and soils in a 4 to 5 acre area. Impacts to vegetation would be negligible outside the levelled or graded areas.

Campground use would result in slight to moderate long-term impacts from soil compaction and slight impacts from erosion. The long-term potential for impacts to vegetation (especially trees) is high due to campground use, vandalism, and encroachment into adjacent areas. There would be an increased risk of wildfire during fire season. The development could accommodate up to 40 to vehicles.

b. Potential development of the Jade Mill area would be very similar to "a." above (total area of surface disturbance would be 6 to 8 acres). Development of the Jade Mill area would improve visitor safety by relieving traffic congestion on the main Clear Creek Road. Development of a non-ORV camping area would reduce conflicts between user groups. The administrative site would provide better visitor and emergency services. The lower Jade Mill development could accommodate 20 to 25 vehicles while the upper area could accommodate 40 to 50.

More intensive development of the upper Jade Mill area would cause adverse impacts similar to those listed above, but greater (approximately 8 to 10 additional acres of surface disturbance for a total of 16 to 18 acres). This development could provide alternative camping/staging space outside the serpentine area even on heavy use weekends and for organized events (space for up to 300 vehicles). It would have the potential to significantly reduce asbestos exposure and impacts to RTE plant habitat (both listed and candidate species).

c. Development of trail systems from the camping/staging areas would reduce intensive use in Clear Creek Canyon. This would improve visitor safety and reduce damage to riparian areas. It would reduce damage to potential habitat for the San Benito evening primrose as well as the threat of disturbing known habitat (fenced exclosures). Protection of the riparian zone along Clear Creek would promote stream bank stabilization and reduce stream channel erosion and sedimentation. Trail construction and use would result in slight soil erosion and vegetation damage along trail routes. Negligible impacts to water quality would result from construction. Overall, the net impacts would be positive from the dispersal of ORV use out of the canyon bottom.

d,e,f. There would be negligible or no impacts from installation of bulletin boards and signs. User awareness of asbestos hazards, resource values and appropriate regulations would be improved. Directional signing would improve visitor safety and aid in search and rescue efforts. Posting of private/public land boundaries would help to reduce trespass and conflicts with private landowners.

g. Land tenure adjustments would aid in improving management efficiency and reducing conflicts with private landowners overall (although new conflicts would occur in some areas such as the Joaquin Rocks and San Carlos Bolsa areas). Additional hunting, camping, and ORV trail riding opportunities would be provided in the Byles Canyon/Tucker Mountain, Joaquin Rocks, and San Carlos Bolsa areas (an increase of 200,000 visitor hours per year for a total of 600,000 per year). The size of the management area would increase by approximately 27,000 accessible acres (to a total of approximately 75,000 acres). Acquisition of inholdings would facilitate routing of ORV events by reducing potential conflicts with private landowners. Land tenure adjustments would allow for the provision of additional recreation opportunities on the non-serpentine portions of the MA. This would have the potential to significantly reduce asbestos exposure, particularly for hunters during the deer season (August and September which are the driest months).

Slight to moderate long-term impacts are likely to occur to soils and vegetation from vehicle use off designated routes in the Joaquin Rocks, San Carlos Bolsa, and Byles Canyon/Tucker Mountain areas. Construction of the four-wheel drive route into San Carlos

Bolsa would result in slight to moderate short-term impacts to soils and vegetation. Slight to moderate long-term impacts to soils and vegetation would occur from maintenance and vehicle use. Slight to moderate long-term impacts to wildlife from disturbance by vehicles would result, particularly during the deer fawning, and upland game bird and raptor nesting period (spring).

Slight to moderate impacts will occur to grazing operations on the periphery of the MA. Hunting and vehicle use will disturb grazing animals and impact grazing operations in proportion to the amount of visitor use. Operating costs will increase to cover damages caused by recreationists, including vandalism to fences and water facilities (cutting fences, leaving gates open, shooting holes in water tanks, etc.). These impacts can be expected to increase in the Joaquin Rocks, San Carlos Bolsa, Byles Canyon, and Tucker Mountain areas as access is developed. These impacts are expected to continue in the Condon Peak area. All of the grazing leases within the MA are inactive during the general deer season, so most disturbances to livestock will occur at other times of the year (wild pigs can be hunted yearlong). Vandalism to facilities will occur regardless of whether or not livestock are present.

Fire hazards would be increased in the non-serpentine areas. Land exchanges and acquisitions would be subject to a site-specific land report and environmental analysis at a later date.

h. Modification of existing ORV designations would result in reclassification of approximately 600 acres from "open" to "limited" vehicle use (primarily along stream corridors). This would provide further protection to sensitive riparian areas and potential habitat for the San Benito evening primrose. The impact to recreation use would be negligible.

i. Development of a foot trail and primitive campsite near Joaquin Rocks would result in negligible impacts to soils and vegetation. Designation of the area as an Outstanding Natural Area and an ACEC would protect the significant natural, scenic, and historic values of the Joaquin Rocks. Construction of vehicle barriers would result in negligible impacts to soil and vegetation. Vehicle barriers would prevent significant impacts from occurring to soils, vegetation, and visual resources within the proposed Natural Area from motorcycle use off designated routes.

j. Cooperation with user groups for project development and area patrols would foster better working relationships, lead to better compliance, and provide facilities that better meet user needs. Trail erosion problems could be dealt with more quickly, reducing erosion and sediment production. Less federal funding would be needed to implement projects and provide visitor services in the area.

k. A delegated law enforcement ranger would reduce the various adverse impacts to resources and discourage illegal activities within the management area. Working with visitor services specialists, the Ranger would also provide important visitor services such as search and rescue, emergency medical services, asbestos hazard awareness, fire prevention, and resource protection information. This staff would be essential to coordinate and implement cooperative management agreements with the user groups. The proposed cooperative agreement with the State of California would provide a better, more efficient, and less costly visitor service and resource protection program in both the Clear Creek Management Area and the Martin Ranch SVRA.

Area of Critical Environmental Concern (ACEC)

1. Asbestos Hazard

a. Construction of the washing facility would result in minor soil disturbance (pad surface, waterline, etc.--approximately 2,000 square feet). Water quality impacts would be negligible. The facility could substantially reduce off-site accumulations of asbestos-laden mud in user's driveways, garages, and neighborhood streets, thus reducing off-site asbestos exposure. Effects on streamflow or downstream uses from water diversion would be negligible.

b. Signing as proposed would improve public awareness of the asbestos health hazards. Some people may choose not to visit the area. Visitors would be more aware of ways to reduce their exposure.

c. The potential for extremely high asbestos exposures for event participants would be substantially reduced by not allowing events during the driest period of the year.

d. Asbestos exposure related to camping could be entirely eliminated on most weekends by providing alternative camping/staging areas located off the serpentine soil.

e. Personal contact is the most effective means of improving awareness of the asbestos health hazard. Visitors will become more aware of the asbestos health hazards and thereby reduce their exposure.

f. Point source asbestos contamination resulting from the Cal Idria Mine could be substantially reduced. This would result in an undetermined economic impact to the Cal Idria Corp., depending on the size and scope of the rehabilitation.

g.,h. Visitor exposure to asbestos mining wastes would be reduced and natural stabilization of the asbestos mining areas would be aided.

i. The potential for increased asbestos exposure resulting from mining in high public use areas would be eliminated with a protective withdrawal. Commercial mining opportunities would be foregone within the withdrawal area (the proposed withdrawal application and mineral report will consider this in greater detail). Mineral development is considered low for mercury and chromite, moderate for asbestos, and moderate to high for gem minerals.

The proposed withdrawal area is presently under C&MU segregation and there are no current mining claims present. The proposed protective withdrawal would not cause an irreversible or irretrievable loss of commercial mining opportunities because it could be terminated at any time and the resource would still be available for commercial production.

j.,k. Information gained from small-scale study plots would ultimately provide valuable information for rehabilitation that could substantially reduce point sources of asbestos contamination. Impacts from the establishment of these study plots would be negligible.

2. Watershed Concerns

a. Installation of additional vehicle barriers would result in a slight to moderate reduction of accelerated erosion into Clear Creek by precluding vehicle use on steep slopes that lead directly into the stream. There would be a slight loss of recreational opportunities, but these areas are legally closed at present by the "limited" designation. Other impacts to soil and vegetation due to construction would be negligible (short-term and site-specific).

b. Rerouting badly eroding trails would improve on-site conditions, but would only slightly reduce overall accelerated erosion into Clear Creek. Other impacts to soil and vegetation from construction of new trail portions would be negligible (short-term and site-specific).

c. Stabilization measures would moderately reduce erosion originating from barren slopes and trails in the bottom of Clear Creek Canyon (both natural and accelerated sources). Short-term impacts to water quality would occur from heavy equipment travel in the stream bed (increased turbidity). Minor site-specific impacts to soils and riparian vegetation may occur in some places. Impacts on recreational use would be slight as some additional hillclimbs would be effectively closed. Again, these areas are already legally closed by the "limited" designation.

d. Silt catchments would moderately reduce total off-site sedimentation from the Clear Creek watershed (in conjunction with stabilization measures proposed). Short-term impacts from construction would be low to moderate (disturbance to soil and vegetation, erosion and increased turbidity). Impacts from long-term maintenance would be negligible (except for total reconstruction). Impacts to air and water quality from the disposal of trapped sediments would be low to moderate depending on the site(s) chosen and timing of disposal. Maintenance would be required at least annually.

e. Regular, planned maintenance of roads and trails has the potential to moderately reduce accelerated erosion in the area and resulting off-site sedimentation. Short-term impacts to soil, water quality and vegetation may occur due to heavy equipment work.

f. The protective withdrawal would reduce the potential for significant impacts to key watershed areas by mining-related surface disturbing actions.

3. Rare, Threatened, or Endangered Plant Habitat

a. A negligible amount of soil disturbance would result from ripping/pitting at the two sites being rehabilitated. If successful, this would result in two new populations (as much as a 10 percent increase in the total population). There would be negligible impacts to existing populations from the collection of seeds.

b. There would be negligible to no negative impact from the proposed ecological study. The information yielded would be very beneficial in future management actions leading to recovery.

c. The modified fire suppression agreement would allow fire to play a more natural role in the ecosystem of the Natural Area. It would significantly reduce potential impacts to soil and vegetation from heavy equipment. It would constrain firefighting tactics to some extent.

d. The protective withdrawal would reduce the potential for significant impacts to sensitive plant species and the threatened San Benito evening primrose in Clear Creek Canyon and the San Benito Mountain Natural Area.

4. Hobby Gem and Minerals

a. The protective withdrawal would protect all known hobby gem and mineral collecting locales in Clear Creek Canyon by precluding commercial mineral entry.

b. The site-specific protective withdrawal would protect all other known hobby gem and mineral collecting locales in the Clear Creek Management Area. The withdrawal would be subject to valid and existing rights, but no further commercial mineral entry would be allowed. There would be a potential long-term loss of commercial mineral production which cannot be quantified until a mineral report is prepared. This would not be an irreversible loss as the withdrawal could be terminated. Hobby gem and mineral collecting would be perpetuated in the long term.

c. Cooperative agreements and purchase/lease of claims would provide other means of protection in lieu of a protective withdrawal.

5. Unique Soils

a. There would be a negligible to small loss of recreational opportunities from physical closure of bald hill areas for soil study plots (50 acres or less). There would be negligible impacts to soil and vegetation from fence or barrier construction. Protection of soil study plots in these areas would allow scientific study by the academic community of a full range of soil/vegetation conditions along a "transect" from higher to lower elevation zones within the serpentine area.

ALTERNATIVE 2 - ALTERNATIVE ACTION

Management Area-Wide (Non-ACEC)

1. Cultural Resources

   There would be significant adverse impacts to sites in the White Creek Archaeological District if vehicular access is provided before these sites are thoroughly evaluated and/or protected.

2. Wildlife Habitat - same as Alternative 1.

3. Recreation

   a. Acquisition of an easement for public access via the Union Carbide Road, White Creek Road, or Pine Canyon Road would provide much more convenient access to eastern portions of the management area, particularly for users from the San Joaquin Valley or southern California. Other impacts would be similar to those listed under Alternative 1, Management Area-wide section, Recreation g., but greater because of a redistribution of visitor use into this portion of the management area (Condon Peak, White Creek, Joaquin Rocks). Site-specific impacts would be dependent on which of the three routes are finally selected for easement acquisition (which would be subject to a site-specific environmental analysis).

   b. Development of the Spanish Flat area would provide another alternative site for users to camp off the hazardous asbestos (serpentine) area. Impacts would be similar to those listed under Alternative 1 for the Oak Flat area (approximately 4 to 5 acres of surface disturbance).

Area of Critical Environmental Concern (ACEC)

1. Asbestos Hazard - same as Alternative 1.

2. Watershed Concerns

   a. Construction of two additional silt catchments would further reduce total off-site sedimentation from the Clear Creek watershed. Other impacts are similar to those discussed for Alternative 1.

   b. Installation of vehicle barriers to close all hill climbs in Clear Creek Canyon would moderately reduce

accelerated erosion into Clear Creek. There would be a moderate loss of recreational opportunities. Other impacts to soil and vegetation due to construction would be slight.

3. Rare, Threatened, or Endangered Plant Habitat - same as Alternative 1.

4. Hobby Gem and Minerals - same as Alternative 1.

5. Unique Soils - same as Alternative 1.

ALTERNATIVE 3 - PRESENT MANAGEMENT (NO ACTION)

Most of the impacts of this alternative have already been thoroughly analyzed in the Clear Creek ORV Designation Environmental Assessment (1981) and other planning documents.

Management Area-Wide (Non-ACEC)

1. Cultural Resources

   Environmental impacts to archaeological sites would be negligible to none. Less archaeological data would be collected under this alternative with a loss of information on the prehistory of the area.

2. Wildlife Habitat

   Water would continue to be a limiting factor in identified areas. This would be a slight to moderate long-term impact (loss of potential increase in wildlife populations). Riparian areas in the Condon Peak area would continue to be impacted by grazing and/or vehicle travel.

3. Recreation

   Exposure of users to asbestos would be greater under this alternative due to the lack of alternative camping/staging areas off the serpentine area. There would be a loss of potential recreational opportunities for hunting and camping (about 200,000 visitor hours) in the non-serpentine areas. There would be a greater potential for resource damage (such as tree cutting), user conflicts, and visitor injuries and fatalities due to a lower level of visitor services provided (signing, emergency services, law enforcement ranger, etc.). There would be continued resource damage (such as impacts to RTE species) and hazardous traffic conditions due to concentrated use along Clear Creek Road and in the bottom of Clear Creek Canyon.

The potential for conflicts with private landowners would be greater under this alternative due to the existing irregular land pattern and lower level of patrols. Environmental impacts would be less in the non-serpentine areas where visitor use is lower.

Area of Critical Environmental Concern (ACEC)

1. Asbestos Hazard

   Asbestos hazard awareness would not be as effective under this alternative and potential health risks to users would remain greater.

2. Watershed Concerns

   This alternative would result in a slight reduction in erosion and total off-site sedimentation from the Clear Creek watershed.

3. Rare, Threatened, or Endangered Plant Habitat

   There would be less potential for expansion of San Benito evening primrose populations and eventual recovery under this alternative.

4. Hobby Gem and Minerals

   There would be some potential for long-term loss of hobby gem and mineral resources due to commercial mining operations under this alternative.

5. Unique Soils

   Mid and lower elevations would not be fully protected as specific areas for the study of unique soils under this alternative. There would be a potential long-term loss of data representing the full range of environmental conditions within the serpentine area.

CUMULATIVE IMPACT SUMMARY

Table 4 provides a summary of the cumulative impact of each alternative with respect to the environmental elements described in Chapter 3 (Affected Environment).

MITIGATING MEASURES

1. Plan construction activities to take place when soil moisture conditions will minimize dust production and erosion and maximize any required compaction. Use water to wet down construction areas, if necessary.

TABLE 4

CUMULATIVE IMPACT SUMMARY

Environmental Elements	Alternative 1	Alternative 2	Alternative 3
Geology and Minerals (Mineral Development)	-L[1]	-L[1]	X
Soils (Erosion)	+M	+L[2]	-L
Vegetation	+L	X[2]	-L
Air Quality	+M[3]	+M[3]	+L
Water Resources	+M	+H	+L
RTE Plants	+M[3]	+M[3]	+L
Hobby Gem and Minerals	+H	+H	+L
Unique Soils	+M	+M	-L
Cultural Resources	+H	+M[2]	X
Wildlife	+H	+M[2]	+M
Recreation	+M	+H	+L
Social and Economic	-L[4]	-M[2]	-M

X = negligible
L = low
M = medium
H = high
\+ = beneficial
\- = advserse

[1] Due to proposed site-specific withdrawal for hobby gem and minerals.

[2] Beneficial impacts would be offset by adverse impacts due to increased public access in the non-serpentine areas over Alternative 1 (greater ease of access).

[3] Would be (+H) with intensive development of the Upper Jade Mill area.

[4] Land tenure adjustments (more manageable boundaries), increased resource protection (delegated Ranger), and visitor services staff would tend to offset the impacts of increased public access in the non-serpentine areas under Alternative 1.

2. Any construction activities (e.g., sediment basins, rock armoring, etc.) that take place in the stream channel should occur during low water periods.

3. New ORV trails will be designed and constructed using guidelines contained in the American Motorcyclist Association (AMA) publication, "A Guide to Off-Road Motorcycle Trail Design and Construction."

4. Install vehicle barriers to protect soils and vegetation (or other sensitive resources) where it becomes necessary.

5. Explore the potential for a private vendor to provide firewood in main camping areas to reduce the incidence of tree and brush cutting.

UNAVOIDABLE ADVERSE IMPACTS

Fire hazard would be increased in the vicinity of the main camping and staging areas on the non-serpentine soils. Fire hazard would be increased in much of the back country areas on the non-serpentine soils, particularly along roads and trails.

Some damage to vegetation (vandalism and cutting of trees and shrubs) would occur within the newly developed camping and staging areas on the non-serpentine soils. Some erosion and sedimentation would continue to occur, although most of it would be produced naturally.

Some users would continue to be exposed to a potential health hazard from asbestos, but to a much lesser degree.

Some conflicts would continue to occur with adjacent private landowners.

IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES

Irreversible and irretrievable commitments of resources resulting from implementation of the alternatives are described below. The term "irreversible" refers to use that is incapable of being reversed. Once initiated, use would continue. The term "irretrievable" means once used, the resource would not be readily replaceable.

Under Alternatives 1, 2, and 3 project construction would involve the following commitments:

Energy and labor expended for projects would be irretrievable.

Prehistoric and historic cultural resources are fragile and non-renewable. Any loss, whether inadvertent through natural processes or planned (such as salvage excavation), constitutes an irretrievable commitment of the resource. Site excavation would, however, enhance the data base and knowledge of the area's prehistory.

Breakage, illicit collecting, and disassociation of artifacts through erosion or trampling would constitute a loss in the present archaeological data base which is not retrievable.

Any loss of soil from construction activities or other surface-disturbing actions such as prescribed burning, ORV trail use, etc., is considered irretrievable.

Any loss of hobby gem and mineral resources due to commercial mining-related impacts would be irretrievable.

SHORT-TERM VERSUS LONG-TERM PRODUCTIVITY

This section identifies the trade offs between short-term use and long-term productivity of resources involved in the alternatives. For this analysis, "short term" refers to the period of project implementation within about five years and "long term" refers to the period of 20 years or beyond in which the alternatives' adverse or beneficial impacts would still occur.

Initial construction of recreation facilities (camping/staging areas) would result in short-term impacts to soils and vegetation, but long-term reductions in exposure to asbestos and conflicts with other resources.

Watershed improvement developments would result in short-term, site-specific impacts to soils and water quality, but long-term reductions in erosion and sedimentation.

Prescribed burning would cause short-term impacts to some wildlife, soils, and vegetation. Long-term effects include productive chaparral management, increased vegetation quality and quantity, increases in water yield, and increases in most wildlife species.

Wildlife water developments would result in short-term impacts to soil and vegetation, but long-term increases in wildlife populations.

CHAPTER 5

CONSULTATION AND COORDINATION

Public input for the preparation of this management plan is actually the culmination of a series of planning events dating back to preparation of the Fresno/San Benito Management Framework Plan (MFP) which was completed in 1978. Planning for the Clear Creek area continued with the completion of ORV Designations in 1981 and the Hollister RMP in 1984.

In December, 1984 a meeting and field tour was held with the Bakersfield District Advisory Council to obtain preliminary input for developing the management plan. The meeting and tour were open to the general public.

In January, 1985 a general mailing was conducted to establish a mailing list and inform interested individuals and organizations of the intent to prepare the management plan and environmental assessment.

Also in January, 1985, various groups, agencies, and individuals were contacted for the purpose of establishing an Ad Hoc Committee and Technical Review Teams to provide specific recommendations to the Bureau to be used in formulating the plan.

The Ad Hoc Committee met for the first time as a group on January 23, 1985. The committee consists of 18 individuals representing a variety of agencies and interests. They are:

Ed Dunkley	- California Association of 4-Wheel Drive Clubs
Ed Tobin	- American Motorcyclist Association
Don Johnson	- California Off-Road Vehicle Association
John Burnett	- California Division of Mines and Geology
Howard Harris	- California Mining Association
Jim Ewell	- California Federation of Mineralogical Societies
George Thomas	- San Benito County Water Conservation & Flood Control District
Bill Wildman	- University of California, Davis, Cooperative Extension (Soils)
Dan Marquis	- Soil Conservation Service
Jim Griffin	- University of California, Hastings Reservation (California Native Plant Society)
Jim Bartel	- U.S. Fish & Wildlife Service (Sacramento Endangered Species Office)

Steve Johnson - The Nature Conservancy
Hank Doddridge - Sportsmen's Council of Central California
Don Pine - California Dept. of Fish & Game
Dick Gilbert - California Dept. of Forestry
Larry Helm - California Dept. of Parks & Recreation
John Eade - Rancher and private landowner
Rocky Lydon - San Benito County Board of Supervisors

The Ad Hoc Committee has several functions. First, they have provided a pool for the formation of Technical Review Teams (TRTs) and ultimately will be called upon to provide assistance and input during plan implementation stages.

The first TRT trip took place February 26-28, 1985, the second trip March 19-20, 1985, and the third trip April 9-10, 1985. Each TRT toured a specific portion of the area and on the last day prepared a report containing specific management recommendations for the trip area. Subsequent follow-up trips were made with individual BLM staff and committee members for the purpose of determining on-the-ground project locations, obtaining cost estimates, etc.

On April 30, 1985, a letter was sent out to the Clear Creek mailing list to provide information on the TRT process and preparation of the Draft Plan/EA (progress, availability, etc.).

On June 14, 1985, a meeting was held with the Bakersfield District Advisory Council in Fresno. Management goals and objectives, as well as draft planned actions, were presented to the Council for their consideration and input. The meeting was open to the general public.

The following agencies and organizations received a copy of the Draft Plan/EA (all individuals on the Clear Creek mailing list also received a copy of the Draft Plan/EA):

San Benito County
Board of Supervisors
Farm Bureau
Water Conservation and Flood Control District
Fish and Game Commission
Planning Department
Sheriff's Department

Fresno County
Parks and Recreation Department
Planning Department
Sheriff's Department
Farm Bureau

Central Valley Regional Water Quality Control Board
Central Coast Regional Water Quality Control Board
Monterey Bay Air Pollution Control District

State of California
- Department of Parks and Recreation
- Department of Conservation
- Department of Fish and Game
- Department of Forestry
- Division of Mines and Geology
- Hollister Hills SVRA
- University of California - Berkeley
- University of California - Davis
- California State - Stanislaus

State Senator Ken Maddy
State Senator Henry Mello
State Assmeblyman Rusty Areias
State Assemblyman Eric Seastrand
State Assemblyman Jim Costa

Senator Pete Wilson
Senator Alan Cranston
Congressman Tony Coelho
Congressman Leon Panetta

Environmental Protection Agency
Bureau of Reclamation
U.S. Forest Service
U.S. Fish and Wildlife Service
Soil Conservation Service
Pinnacles National Monument

American Motorcyclist Association
Arco
Audubon Society, Fresno Chapter
Cal Idria Corporation
California Association of 4WD Clubs, Inc.
California Cattlemens Association
California Federation of Mineralogical Societies
California Mining Association
California Native Plant Society
California Off-Road Vehicle Association (CORVA)
California Woolgrowers Association
Central Valley Sportsmen
Chevron U.S.A., Inc.
Clovis 4x4s
Four-Wheel Drive Club of Fresno
Four-Wheelers Anonymous
Fresno County Sportsmens Club
Gulf Oil
Kingsburg 4WD Club, Inc.
Los Altos Dirt Bikers
Los Gatos Motorcycle Club

Merced Dirt Riders
Minerals Exploration Coalition
Mission Trails Bowhunter Association
Monterey Bay Mineral Society
Mountain Transit Authority 4WD Club
Mountaineers Motorcycle Club
Motorcycle Owners, Riders, and Enthusiasts
National Outdoor Coalition
Natural Resources Defense Council
Off-Road Vehicle Coalition
Pacific Gas and Electric Company
Ridge Runners Motorcycle Club
Salinas Bowmen, Inc.
Salinas Ramblers Motorcycle Club
Salinas Sportsmens Club
Santa Clara Valley Gem and Mineral Society
Shell California
Sierra Club, Tehipite Chapter
Society for California Archaeology
Sohio Petroleum Company
Southern Monterey County Sportsmen
Sportsmen for Equal Access
Sportsmen's Council of Central California
Stanislaus Trailbike Association
The Nature Conservancy
The Wilderness Society
Timekeepers Motorcycle Club
Union Molycorp, Inc.
Western Mining Council, Santa Clara Chapter
Wilsons Motorcycle Club
World of Rockhounds Association

List of Preparers:

Scott Florence, Supervisory Resource Management Specialist (Team Leader, Wildlife and RTE)
Donald Lipp, Archaeologist (Co-Team Leader, Cultural Resources)
David Lehmann, Outdoor Recreation Planner (Recreation, Hobby Gem and Minerals)
John Hervey, Natural Resource Specialist (Soil, Water and Air Management)
Jim Ward, Realty Specialist (Land and Minerals)
Dennis Johnson, Lead Range Conservationist (Livestock Grazing)
Bruce Cotterill, Range Conservationist (Livestock Grazing)

List of Reviewers:

Ed Lynch, Planning and Environmental Coordinator
Marta Witt, Public Information Officer
John Key, Soil Scientist
James Jennings, Outdoor Recreation Planner

Patricia Gradek, Hydrologist
Robert Waiwood, Geologist
Charles Kihm, Realty Specialist
Larry Saslaw, Wildlife Biologist
Alex Young, Landscape Architect
Butch Olendorff, Endangered Species Specialist
Mike Ferguson, Wildlife Biologist
John Willoughby, Range Conservationist
Mark Blakeslee, Hydrologist

APPENDIX 1

Summary of RMP Decisions

Clear Creek/Condon Peak Management Area:

Livestock Grazing

1. Allocate livestock forage on suitable and potentially suitable areas only.

2. Prescribe burn to improve range conditions on approximately 1,500 acres as identified in the San Benito County Burn Plan.

3. Continue livestock grazing in the Condon Peak area under the existing Upper Los Gatos Creek AMP.

   a. A normal grazing season of November 1 to May 31 will be the preferred grazing season. Other grazing seasons will be established only if the other uses are not significantly impacted.

   b. Seven hundred pounds per acre of mulch will be left after grazing to protect the soil from erosion and provide for other uses.

Oil, Gas and Minerals

1. Terminate the mineral segregation on 79 acres along the San Benito River.

2. Withdraw 1,868 acres in the San Benito Mountain Natural Area (including the 380-acre Sawmill Creek extension) and 1,031 acres in the Clear Creek Canyon area from locatable mineral entry under the 1872 Mining Law.

3. Allow no mineral leasing or sales within Clear Creek Canyon (same area as protective withdrawal).

4. Allow mineral exploration and development elsewhere in potential areas within the MA.

5. Designate and protect areas of significant concern for hobby gem and minerals collecting in consultation with interested parties (in conjunction with element for soil, air and water --Clear Creek Serpentine ACEC).

Fire Management

1. Prescribe burn approximately 14,000 acres for fuel hazard reduction as outlined in the San Benito and Fresno/Monterey County Burn Plans.

2. Allow the use of fire (action modification and/or prescribed burn) in the San Benito Mountain Natural Area to promote natural conditions. The use of prescribed burning will be contingent on the strict control of ORVs and in consultation with qualified botanists.

3. Areas burned by wildfire in the Natural Area will not be reseeded in order to protect endangered plant species from introduced competition.

Recreation

1. Continue to manage the area as a Special Recreation Management Area to provide semi-primitive opportunities for ORV enthusiasts, hunters, and rockhounds in accordance with the Clear Creek ORV Designation and Implementation Plan.

   a. Vehicle use is limited to designated routes in Clear Creek Canyon, riparian areas, and grazing areas such as the Condon Peak area (16,000 acres).

   b. The San Benito Mountain Natural Area is closed to all vehicle use except for the county roads and "ridge route" (2,000 acres).

   c. The remainder of the area is designated as open (25,000 acres - mostly brushfields and barren areas).

2. Allow no camping within the San Benito Mountain Natural Area and extension. Camping will be allowed elsewhere in accordance with the ORV Designation and Implementation Plan.

3. Clear Creek Canyon is designated as a "no shooting" area.

4. Intensify environmental education efforts with the goal of obtaining the maximum level of voluntary compliance with ORV designations.

5. Acquire private land at the entrance to Clear Creek (or develop cooperative agreement) to provide camping and staging areas outside the serpentine area. The use of contributed funds such as "Green Sticker" monies will be emphasized.

Land Tenure

1. Acquire state lands in Sections 16 and 36 (T. 18 S., R. 12 E.) and private inholdings through acquisition or land exchange. Acquisition of private inholdings has priority over acquisition of state-owned sections.

2. No lands will be made available for disposal that will compromise the management objectives for the management area.

Vegetation (Including Sensitive or RTE Plants)

1. Maintain the San Benito Mountain Natural Area designation and extend it (approximately 380 acres) to include the upper end of Sawmill Creek (total of 1,868 acres).

2. Manage the unique desert needlegrass community in the Condon Peak area to maintain or increase the population.

3. Give special consideration to the unique stands of big sagebrush in the San Carlos Bolsa area and protect to the extent possible.

4. Manage the conifer forests for their scenic values and unique vegetation characteristics in consultation with qualified botanists (no commercial harvest in the San Benito Mountain Natural Area).

5. Protect and manage sensitive or RTE plants and riparian zones in accordance with the existing Clear Creek ORV designation and implementation plan and the HMP to be prepared for wildlife habitat. Designate the serpentine area as an ACEC in conjunction with the element for soil, air and water (Clear Creek Serpentine ACEC).

    a. Manage to protect and/or enhance sensitive plant populations in the area.

    b. Continue monitoring to assess impacts from ORV use, mining and other surface-disturbing activities on sensitive or RTE plant habitat and important riparian zones.

    c. Work with qualified botanists and concerned groups to identify and prioritize areas needing further protection.

Soil, Air, and Water

1. Reduce the airborne asbestos dust hazard and minimize erosion from surface-disturbing activities as outlined in the Clear Creek ORV Designation and Implementation Plan.

a. Stabilize the Clear Creek Road by installation of low water fords and application of a dust suppressant.

b. Install physical barriers to prevent further vegetation destruction around camping and other high use areas.

c. Close and stabilize severely eroding slopes (hill climb areas) in Clear Creek Canyon.

2. Prepare a watershed amendment to the ORV Designation and Implementation Plan to establish "Best Management Practices" for additional watershed enhancement/stabilization measures.

3. Designate the area of serpentine soils high in asbestos fibers and the Clear Creek watershed as the Clear Creek Serpentine ACEC (30,000 acres).

a. Intensify the current asbestos awareness program through signing, pamphlets, and individual user contacts.

b. Continue monitoring programs assessing sedimentation in the Clear Creek drainage from ORVs, mining, and other activities. Identify and prioritize areas requiring further protection and/or stabilization.

c. Designate and protect representative serpentine soil research areas for their scientific and educational values.

d. The ACEC will not alter existing ORV designations or other uses.

Cultural Resources

1. Determine National Register eligibility for the White Creek Archaeological District.

Call Mountain/Hernandez Valley Management Area

The following decisions for this management area with specific reference to the Clear Creek Management Area were:

Recreation

Enhance access to public lands for hunting and ORV opportunities in the area north of Clear Creek. Consolidate public lands and manage in conjunction with the Clear Creek Special Recreation Management Area (SRMA).

Land Tenure

Consolidate public land immediately north of the Clear Creek area (Byles Canyon/Tucker Mountain area) and in the Laguna Mountain area.

Wildlife Habitat

1. Develop an HMP for Laguna Mountain and Byles Canyon areas with emphasis on deer and wildlife habitat improvement. Prescribe burn to maintain uneven-aged brushfields (approximately 5,000 acres).

2. Combine development with the HMP for the Clear Creek/Condon Peak Management Area to the extent possible.

Ciervo Hills/Joaquin Rocks Management Area

The following decisions for this management area with specific reference to the Clear Creek MA were:

Recreation and Land Tenure

1. Manage the Joaquin Rocks area in conjunction with the Clear Creek SRMA to provide hunting, hiking, and camping opportunities.

2. Work with the state, Southern Pacific Railroad, and Standard Oil Company to effect a land exchange in the Ciervo Hills and Joaquin Rocks areas in conjunction with the Martin Ranch SVRA proposal. Enter into a cooperative agreement with the state for management subsequent to the exchange.

3. Acquire and protect the Joaquin Rocks for their scenic and historical significance.

APPENDIX 2

Planned Cultural Resource (Site Management) Projects

Site	FY/ Priority	Project Type	Cost
--	Annually	Inventory of high sensitivity areas (500 acres)	.25 WM
Fre-1343, FS-116, FS-117 FS-118	1986	In-house testing for site depth and extent (Presence/absence)	.25 WM
Fre-1333	1986	Excavation of entire deposit within rockshelter, as well as backdirt and midden in front of shelter	$15,000
Fre-1331	1987	Test excavation to determine site depth and extent. Five 1 x 1 meter test units.	10,000
Fre-1340	1988	Test excavation to determine site depth and extent. Five 1 x 1 meter units.	10,000
		TOTAL	$35,000

Due to the low level of inventory previously conducted in the management area, it is felt that additional survey is important to enhance the data base and identify significant sites in need of active management. A minimum of 500 acres of inventory per year is suggested, primarily in high sensitivity areas. As sites are recorded, they will be monitored annually to detect changes in site integrity. If adverse impacts occur, measures will be taken to curb such effects. These measures may include protective signs, fence or barrier construction, detailed recordation and/or data recovery.

Fences or barriers will be used at sites having potential for preservation in place. Although not generally effective in curbing vandalism or pothunting, barriers or fences may be quite

successful in reducing damage from off-road vehicles or cattle grazing. Three sites (Fre-1331, Fre-1333, Fre-1340) have been selected for data recovery based upon management needs, as well as their ability to address important research questions. The proposed development of vehicular access along White Creek makes these excavations viable from a management perspective, and all three sites hold excellent potential as subjects for research. Although some minor testing (presence/absence) will be done in-house, excavation will generally be conducted under contract or cooperative agreement. A short description of each site follows:

Fre-1331: An open campsite consisting of a large midden deposit containing chert flakes, fire-affected rock, shell and bone. A projectile point and a steatite bead were collected from the surface. This site, which appears to have some depth, has been impacted primarily from pothunters and cattle grazing.

Fre-1333: This site consists of a rockshelter containing a substantial midden deposit with numerous artifacts. Although this site has been heavily impacted by pothunters, much of the deposit still remains. Cultural material noted includes a high density of chert flakes, burned bone, several tools, shell (some abalone) and fire-affected rock. Several bedrock mortars are located at the shelter entrance.

Fre-1340: An open campsite with several bedrock mortars, midden, lithics and a possible housepit. This site has been somewhat impacted by road construction and pothunting (backdirt pile noted on site).

These sites exhibit varying degrees of damage as a result of vandalism and pothunting. Due to the current lack of knowledge regarding regional prehistory, as well as the ongoing adverse effects, it is felt that excavation is an appropriate treatment of these resources.

APPENDIX 3

Planned Wildlife Habitat Improvement Projects

Name/Map No.	FY/ Priority	Project Type	Units	Cost
WL-1	1986	Meadow exclosure[1]	1/2 acre	$ 500
WL-2	1986	Meadow exclosure	20' x 100'	150
WL-3	1987	Deer/quail guzzler[2]	2 - 100 gal.[4]	4,000
WL-4	1986	Meadow exclosure[3]	1/4 acre	1,500
		Meadow exclosure	1/4 acre	250
		Meadow exclosure	1/4 acre	250
	1986	Meadow exclosure	1/4 acre	250
WL-5	1986	Meadow exclosure[1]	1/4 acre	750
WL-6	1986	Meadow exclosure	1/4 acre	250
WL-7	1987	Deer/quail guzzler[2]	2,100 gal.	4,000
WL-8	1988	Deer/quail guzzler[2]	2,100 gal.	4,000
WL-9	1987	Vehicle barrier(rock)[7]	500 ft.	1,500
WL-10	1987	Deer/quail guzzler[2]	2,100 gal.	4,000
WL-11	1986	Deer/quail guzzler[2]	2,100 gal.	4,000
WL-12	1989	Deer/quail guzzler[2]	2,100 gal.	4,000
WL-13	1989	Deer/quail guzzler[2]	2,100 gal.	4,000
WL-14	1990	Quail guzzler[2]	990 gal.[5]	3,000
WL-15	1990	Quail guzzler[2]	990 gal.	3,000
WL-16	1988	Deer/quail guzzler[2]	2,100 gal.	4,000
WL-17	1988	Deer/quail guzzler[2]	2,100 gal.	4,000
WL-18	1988	Deer/quail guzzler[2]	2,100 gal.	4,000
WL-19	1988	Deer/quail guzzler	2,100 gal.	4,000
WL-20	1989	Quail guzzler[2]	990 gal.	3,000
WL-21	1989	Quail guzzler[2]	990 gal.	3,000
WL-22	1987	Spring development[4]	1[6]	500
WL-23	1986+	Prescribed Burn	4,000 acres	6,000[8]
Condon Peak Burn	1986+	"	3,000 acres	5,000
Byles Canyon Burn	1987+	"	1,500 acres	4,000
Goat Mountain Burn				

Name/Map No.	FY/ Priority	Project Type	Units	Cost
San Carlos Bolsa Burn	1988+	Prescribed Burn	1,000 acres	$ 4,000
Sampson Peak Burn	1989+	"	1,000 acres	4,000
			TOTAL	$84,900

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[1] Pipe water from spring source to trough outside fence for cattle.

[2] Includes small protective fence around guzzler unit. Also includes exterior drinking ramp with big-game units to facilitate wild pig use and use by other wildlife.

[3] A meadow complex near an old homestead--pipe water to small trough outside fence (at meadow with an existing dilapidated hog-wire exclosure). Meadow exclosures only at two other sites (one is just north of road to east of homestead and consists of a dug-out sump, the other is just below homestead and below or down canyon several hundred feet from first site).

[4] Requires 17 inches of rainfall annually to fill the unit.

[5] Requires 9 inches of rainfall annually to fill the unit.

Note: All big-game units are located in the 16-18 inch zone of average annual precipitation. All smaller units are located in the 10-14 inch zone of average annual precipitation.

[6] The site would be used as a camping area with some of the water piped downhill about 200 feet to another small basin (to provide water away from the use area). Remove the old fence around the pond and periodically burn the tules.

[7] Dump truck and backhoe using rock in general area.

[8] Costs shown for prescribed burn projects are yearly or recurring costs through the life of the project (for helitorch operation and/or mechanical pre-treatment of brush). Project life would be 5-10 years.

APPENDIX 4

Planned Recreation Facilities and Developments

Name/Map No.	FY	Project Type	Units	Cost
Clear Creek road improvement	1985	Grading, culverts, stream crossings	4.8 miles	$201,000
Staging area improvement	1985	Grading, toilets	6 areas 4 toilets	40,000
Oak Flat	1987	Acquisition and camp/staging area development	1	327,000
R-1	1987	Kiosk	1	2,000
Oak Flat trails	1987	Motorcycle trails	1.5 miles	3,000
San Carlos Bolsa trail	1986	4-WD trail	.5 miles	1,000
Upper Jade Mill/R-2	1988	Staging area	1	27,000
Upper Jade Mill	1989+	Maintenance	1	1,500/yr.
Lower Jade Mill/R-3	1988	Non ORV camp	1	19,000
Lower Jade Mill	1988	Maintenance	1	1,000/yr.
Administrative site	1988	Trailer and Butler building	1	77,500
Administrative site	1989+	Maintenance	1	3,000/yr.
Asbestos mines	1986	Post mining areas closed	3	3,000
1st staging area trail	1988	Motorcycle trail	.5 miles	1,000
5th staging area trail	1989	Motorcycle trail	.5 miles	1,000
3rd staging area trail	1990	Motorcycle trail	.5 miles	1,000
R-4 to R-9	1988	Signs	12	6,000
R-10	1988	Directional signs	1	500
R-11, R-12	1987	Traffic control signs	2	1,000
R-13 to R-18	1989	Directional signs	6	6,000
R-19	1986	Directional sign	1	500
R-20 to R-27, R-38	1986	Natural Area informational signs	8	4,000
R-39, 40, 41	1986	Gates	3	300

Name/Map No.	FY	Project Type	Units	Cost
R-28 to R-34	1989	Directional signs	7	3,500
R-36, R-37	1989	Directional/info. signs	2	1,000
R-35	1990	Signs and campground	1	2,500
Joaquin Rocks trail	1990	Hiking trail	.5 miles	1,000
			TOTAL	$744,000

Note: Most of these proposals are predicated on the assumption that contributed funding will be acquired for operations and maintenance, including a full-time visitor services staff.

APPENDIX 4A

Signs

Map No.	Sign Descriptions
R-1	Kiosk at Oak Flat campground, with campground name, entering Clear Creek MA sign, regulations, map, etc. See text (may be more than one sign).
R-2	Bulletin board and camp/staging area name (more than one sign) - upper Jade Mill.
R-3	Bulletin board and camp/staging area name (more than one sign) - lower Jade Mill.
R-4	Bulletin board and camping/staging area name (more than one sign) - Staging Area #1.
R-5	" - Staging Area #2
R-6	" - Staging Area #3
R-7	" - Staging Area #4
R-8	" - Staging Area #5
R-9	" - Staging Area #6
R-10	Direction to Oak Flat, Jade Mill, Bald Hills
R-11	"Go Slow/Keep to Right"
R-12	"
R-13	Direction to Picacho Ridge, San Benito Mountain
R-14	Direction to camping/staging areas, Picacho Inn
R-15	Directional sign to camping/staging areas and Sawmill Creek
R-16	" "
R-17	Asbestos sign moved to this location
R-18	Directional signs redesigned for one post

Map No.	Sign Descriptions
R-19	Directional sign to San Carlos Bolsa
R-20	Directional sign to San Benito Mountain (away from McCullough Hill)
R-21	" "
R-22	Directional sign to San Benito Mountain/Clear Creek
R-23	San Benito Mountain Natural Area closed to vehicle use, left of road; right of road open to vehicle use.
R-24	San Benito Mountain Natural Area - All vehicles stay on main road next ____ miles.
R-25	San Benito Mountain Natural Area - same as R-23
R-26	Same as R-24
R-27	"San Benito Mountain"
R-28	Directional sign to Clear Creek, San Benito Mountain Natural Area, Spanish Lake
R-29	Directional sign to Condon Peak area
R-30	" "
R-31	" "
R-32	" "
R-33	" "
R-34	Directional sign to Idria, San Benito Mountain Natural Area, Clear Creek
R-35	Bulletin board/Joaquin Rocks campground (2 signs)
R-36	Directional sign to Idria, Clear Creek
R-37	Bulletin board/Condon Peak access signs
R-38	San Benito Mountain Natural Area - Vehicles stay on road

APPENDIX 5

Planned Asbestos Hazard Reduction Projects

Name/Map No.	FY	Type	Units	Cost
Vehicle washing facility	1988	Asbestos hazard reduction	1	$39,000
Vehicle washing facility	1989+	Maintenance	1	2,000/yr.
Spray road + staging areas with dust suppressant	1985	Asbestos hazard reduction	6 staging areas 4.8 miles road	36,000
			TOTAL	$77,000

APPENDIX 6

Planned Watershed Improvement
and Stabilization Projects

Name/Map No.	FY/ Priority	Project Type	Units	Cost
Goat Mt. Road W-1	1986	Reconstructed jeep road	1/3 mile	$ 5,000[1]
	1986	Vehicle barriers	100 ft.	400
	1986	Rock armoring	150 ft.	4,500
Eroded Hill Climb W-2	1986	Water diversion	1 project	500
	1986	Gully plugs	5	300
Plymouth Rock Dam W-3	1988	Rock gabion dam (20 ft.)	1	80,000[2]
Bald Hills Dam W-4	1988	Earth or rock gabion dam (20 ft.)	1	80,000[3]
Rerouted Trail W-5	1986	Water bars and/or barriers	1 project	300
Old Dam W-6	1989	Rock gabion dam (10 ft.)	1	25,000[4]
Recent Slump W-7	1989	Rock armoring	250 ft.	3,800
Deadman's Camp W-8	1986	Rock armoring	100 ft.	1,500
Earth Dam W-9	1990	Earth detention dam (20 ft.)	1	20,000[5]
Cut Trees Camp W-10	1987	Barriers	100 ft.	700
Staging Area 5 W-11	1987	Barriers	300 ft.	2,000
	1987	Old road stabilization	1/8 mile	500
Mud Hole Hill Climb W-12	1987	Barriers	100 ft.	700
1st and 2nd Stream Crossings W-13	1987	Rock armoring	150 ft.	2,300
Narrows W-14	1989	Rock armoring	150 ft.	3,000
Closed Hill Climb W-15	1989	Rock armoring	50 ft.	800
Old Dam - D.S. W-16	1989	Rock armoring	60 ft.	1,200

Name/Map No.	FY/ Priority	Project Type	Units	Cost
3rd Stream Crossing-L W-17	1990	Rock armoring	75 ft.	1,100
3rd Stream Crossing-U W-18	1990	Rock armoring	100 ft.	2,000
Small Slide W-19	1990	Rock armoring	150 ft.	2,200
Old Dam-U.S. W-20	1990	Rock armoring	150 ft.	2,000
Upper Deadman's Camp W-21	1991	Rock armoring	50 ft.	700
Cabe Site W-22	1991	Rock armoring	150 ft.	6,000
Road Embankment W-23	1991	Rock armoring	150 ft.	6,000
Scheduled Road and Trail Maintenance	Yearly	Waterbarring, outsloping, etc.	miles	5,000[6]
Gauging Stations	1986	In-stream, USGS	2	14,000[7]
			TOTAL	$271,500

---

[1] Operations & Maintenance (O&M) - $175

[2] O&M - $3,200

[3] O&M - $3,200

[4] O&M - $1,600

[5] O&M - $2,800

[6] Since this is a recurring cost it is more properly an O&M cost.

[7] Installation cost only, assuming they are monitored by BLM staff. USGS would charge an additional $14,000 per unit per year for sedimentation and flow monitoring/reporting.

APPENDIX 7

Planned RTE Habitat Improvement Projects

Name/Map No.	FY	Project Type	Units	Cost
Monitoring	Annually	--	1	0.5 WM
RTE-1	1987	Site rehabilitation[1]	1/2 acre	$ 500
RTE-2	1987	Site rehabilitation[1]	1/2 acre	500
Ecological study of the San Benito evening primrose	1987+	Contract (see next page)	1	15,000
			TOTAL	$16,000

[1] Ripping/pitting using rented equipment (e.g., hand-operated pitter or heavy rototiller), heavy equipment (e.g., dozer with ripper tooth) may also have to be used.

APPENDIX 7, continued

Contract Proposal for Study of the San Benito Evening Primrose

I. Establishment and growth.

A. Investigate seed dormancy and viability.

B. Investigate optimum conditions and tolerance ranges for germination and growth.

1. Compacted/impacted soils versus loose alluvium.

2. Soil constituent levels of trace elements and compounds.

3. Temperature, moisture, irradiance levels.

II. Intraspecific and interspecific competition.

A. Investigate optimum densities of Camissonia for germination, growth, and continued survival.

B. Evaluate competitive ability of Camissonia benitensis versus associate and successional plant species observed in the field (current monitoring program addresses this issue).

C. Evaluate effect of animals (see below).

III. Reproduction

A. Investigate pollination vectors and inter-population genetic exchange.

B. Investigate factors affecting seed production.

C. Investigate factors affecting seed dispersal.

IV. Causes of mortality

A. Investigate plant/animal interactions.

B. Investigate plant/plant interactions.

C. Investigate environmental factors and tolerances.

V. Protective measures and recovery efforts

A. Investigate habitat rehabilitation/improvement practices.

B. Investigate possibility of artificial establishment of new populations.

C. Expand public information program on botanical resources within the management area.

APPENDIX 8

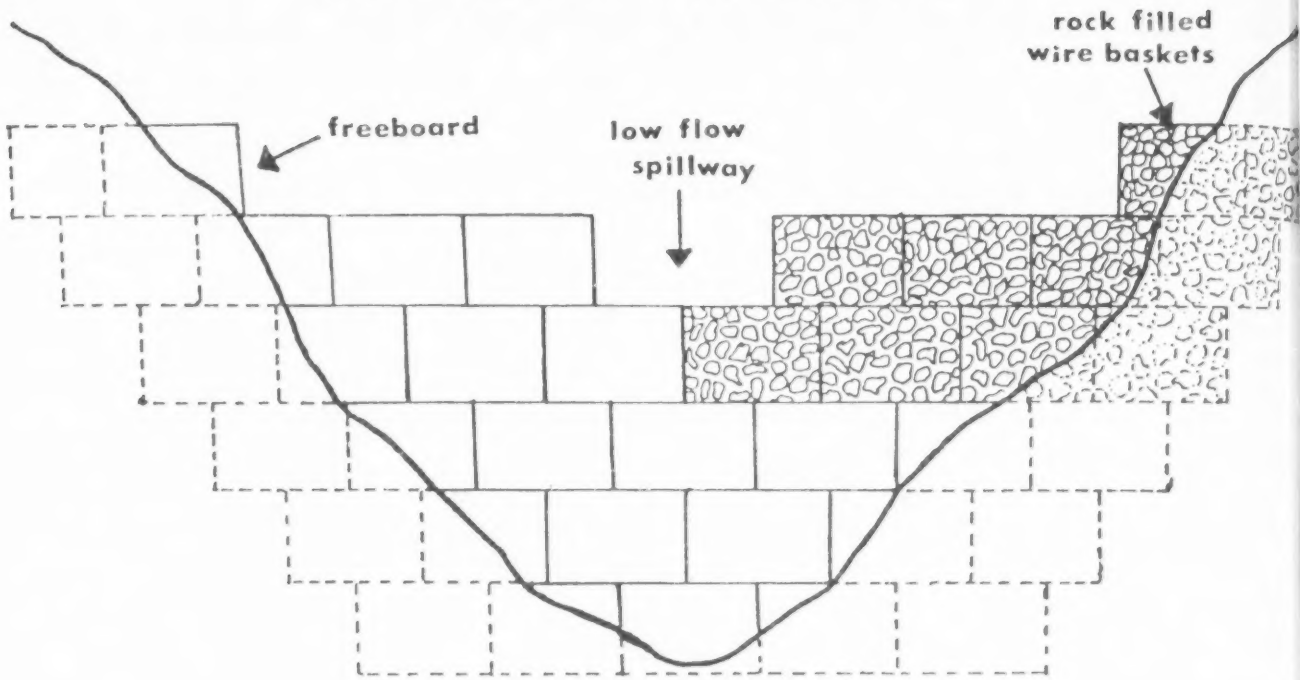
Alternative Cost Comparison

	Issue/Resource	Alternative 1	Alternative 2	Alternative 3
1.	Asbestos Hazard	$ 77,000	$ 77,000	$ 36,000
2.	Watershed	271,500	418,500	18,000
3.	Rare, Threatened or Endangered Plant Habitat	166,000	166,000	150,000
4.	Hobby Gem and Minerals	--	--	--
5.	Unique Soils	--	--	--
6.	Cultural Resources	35,000	35,000	--
7.	Wildlife Habitat	84,900	84,900	10,000
8.	Recreation	744,000	886,000	241,000
	TOTALS	$1,378,900	$1,787,400	$455,000

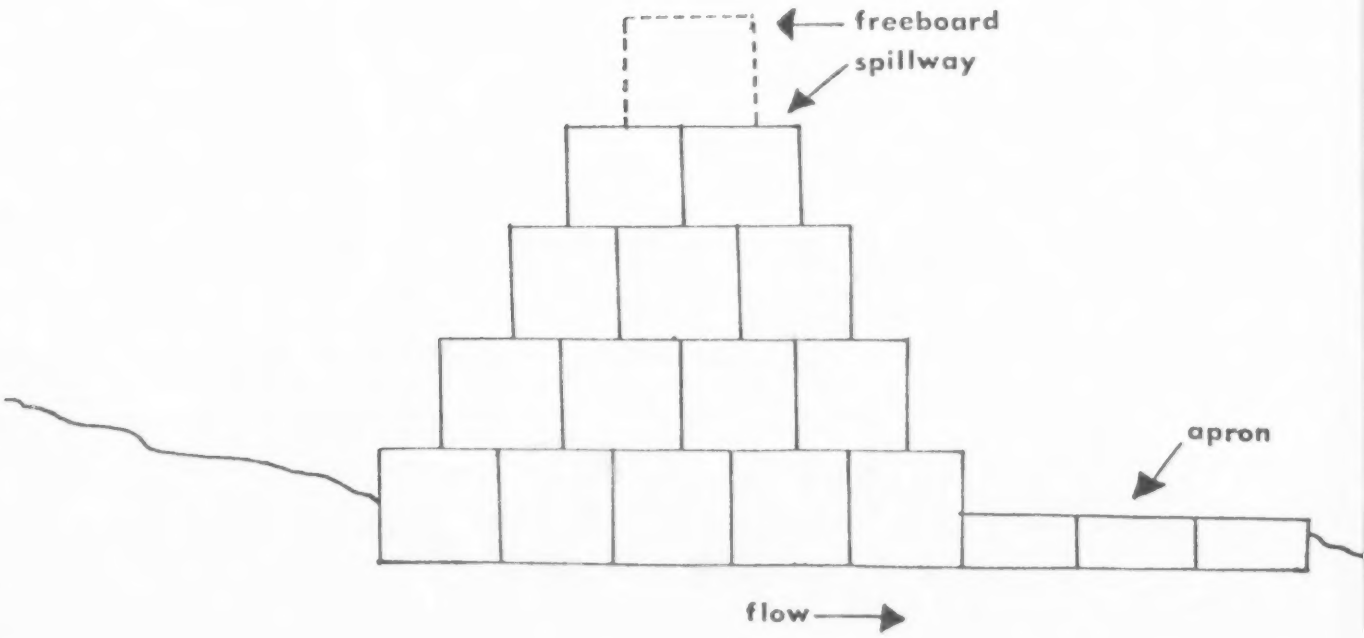
Note: The costs shown are for project implementation and major maintenance items (first year only). They do not include work months. Work month costs would increase under Alternatives 1 and 2. The majority of the increase would be for visitor services specialists. This cost would be covered by Green Sticker funding under the Clear Creek Grant III funding proposal. The costs of land exchanges and acquisitions are not included (except for acquisition of the entrance parcel) because costs are not available at this time. They will be evaluated on an individual or site-specific basis at a later date.

APPENDIX - 9

ROCK GABION DAM DESIGN



DAM SECTION ACROSS THE GULLY



DAM CROSS SECTION AT SPILLWAY

APPENDIX 10

Monitoring Strategies

Issue/Concern	Component	Technique(s)	Unit(s)	Frequency	BLM Work Month(s)[1]
1. Asbestos Hazard	a. Awareness	Evaluate effectiveness of awareness program and voluntary compliance with precautionary measures through individual contact (document in patrol logs) and oral/written questionnaire.	Visitor contacts, percent compliance.	Contacts on continuing basis with visitor service patrols, questionnaire every 2-3 years.	1.0
	b. Dust suppressant	Establish several photo points and monitor visually.	Visual estimate of dust production.	Photo points at least once during dry season, visually on on-going basis as part of patrols.	0.25
	c. Washing facilities	Vehicle counts to determine useage.	Number of vehicles.	Each patrol.	--
2. Watershed	a. Riparian zones	Photo plot/direct observation.	Stability, condition and trend.	Annually	0.5
	b. Soil erosion in ORV use areas	Erosion pin and Universal Soil Loss Equation (USLE) transects, photo plots.	Condition and trend, soil loss (tons/acre/year).	Annually	0.5

[1] Average work month cost is approximately $3,000.

APPENDIX 10, continued

Issue/Concern	Component	Technique(s)	Unit(s)	Frequency	BLM Work Month(s)
2. Watershed (cont.)	c. Vegetation response, soil erosion in prescribed burn areas	Same as above.	Same as above.	Annually for first two years, every five years thereafter until reburn.	0.25
	d. Water quality and sedimentation	Gauging stations (2) - one on Clear Creek and one on San Benito River, water "grab" samples.	Sediment yield	After peak flows read gauging stations, grab samples during patrols (high-use weekends, events).	1.0
3. Rare, Threatened, or Endangered Plant Habitat	a. Serpentine endemics: - San Benito evening primrose - Rayless layia - Talus fritillary	Direct observation of known and potential habitat, and rehabilitated areas, photo plots for for the San Benito evening primrose.	Number (relative abundance), habitat conditions.	Annually during flowering period (inspect sites for vandalism as part of routine patrols).	1.0
	b. Serpentine conifer forest (San Benito Mtn. Natural Area)	Direct observation, photo index (repeat historical photos).	Condition, trend	Every five years	0.25
4. Hobby Gem and Minerals	a. Collection Areas	Document conflicts with mining claimants, direct observation, photos, user contacts.	Site conditions, impacts	Annually inspect several locales and contact users	0.25

APPENDIX 10, continued

Issue/Concern	Component	Technique(s)	Unit(s)	Frequency	BLM Work Month(s)
5. Unique Soils	a. Study areas	Direct observations, photo plots.	Site condition and trend	Annually with academic community	0.25
6. Cultural Resources	a. Site damage due to weathering and erosion.	Photo plots, direct observation	Site conditions, impacts	Annually	0.25
	b. Site damage due to human-caused impacts.	Photo plots, direct observation	Site conditions, impacts	Annually	0.25
7. Wildlife Habitat	a. Deer population trends, distribution, and harvest	CDFG herd composition counts, sex and age ratios, spot kill data, check stations.	Numbers	Annually by CDFG	--
	b. Habitat condition and trend	Direct observation of browse utilization, deer pellet group counts, other wildlife use on prescribed burn areas, photo plots.	Degree use on new browse, relative abundance of pellet groups, other wildlife use.	Annually	0.25
8. Recreation	a. ORV use	Aerial photos, photo plots, patrol logs and incident report data.	Visitor hours based on vehicle counts, road and trail use.	Aerial photos every five years, photo plots annually, patrols 1-2 per weekend.	2.0
	b. Trail use	Visual monitoring of degree of use, impacts, need for repair, safety hazards.	Condition, hazards	Twice a year (minimum)	.25

APPENDIX 10, continued

Issue/Concern	Component	Technique(s)	Unit(s)	Frequency	BLM Work Month(s)
Recreation (cont.)	c. Barriers	Visually check for condition, vandalism, effectiveness	Condition	On-going as part of regular patrols and maintenance inspections.	--
	d. General Recreation Use	Patrol log and incident report data, note vandalism, trespass, resource damage (obtain vehicle count in serpentine vs. non-serpentine areas to detect changes in use patterns after camping/ staging area development).	Visitor hours based on vehicle counts.	Patrols 1-2 per weekend	1.0

APPENDIX 11

Modified Fire Suppression Plan
for the San Benito Mountain Natural Area

A. Physical Description

The area is located within the Clear Creek Management Area approximately 60 miles southeast of Hollister in San Benito County, California. San Benito Mountain (elevation 5,241) lies roughly in the middle of the 1,880-acre Natural Area which was established in 1972 in recognition of its outstanding natural and scenic values and in order to protect the most representative example of the area's unique serpentine endemic vegetation. Nowhere else on earth does the Jeffrey pine, Coulter pine and digger pine occur in the same location. Incense cedar, another conifer, also grows in the Natural Area as well as chaparral shrub species such as leather oak and manzanita characteristic of the serpentine soils.

B. Fire History

Fire occurrence for the Natural Area is low. There have been no recorded fires in the last 35 years (since 1950), however fire scars are obvious on the older trees and brush. It is presumable that lightning has been and will continue to be an occasional causal factor. Man-caused factors due to high recreational use of the area (mainly off-road vehicles) will be the dominant cause of fires. Fuel types range from NFDRS Fuel Model U or NFFL Model 9 for heavy conifer stands with little or no understory and NFDRS Fuel Model F or NFFL Model 6 for the more open stands interspersed with chaparral shrubs. Fire intensity and rate of spread are both moderate to high for Model F/Model 6 fuels whereas spread rates are low to moderate and intensities low to high for Model U/Model 9 fuels.

C. Objective

This plan will serve as an appendix to the Clear Creek Management Plan and to implement a specific land use decision contained in the Hollister Resource Management Plan (RMP) of 1984. It will guide the management of fires occurring in or threatening the Natural Area.

D. Policy

This plan does not advocate a "let burn policy" on the part of the Bureau of Land Management (BLM). It only changes the degree of intensity with which BLM mandates containment of wildfires, the intention being to avoid spending funds to suppress a fire that presents no threat to life or property or which may be a part of the natural ecosystem. All actions will be carried out in a manner that least impairs the natural values of the area and which results in the least environmental damage.

E. Suppression Action

When a fire is confirmed to be in or threatening the Natural Area, the Hollister Resource Area Manager will be notified immediately by the California Department of Forestry (CDF) Emergency Command Center (ECC). An Environmental Specialist from the area staff will be assigned to the fire to advise the Incident Commander (IC) on fire fighting activities and rehabilitation needs. Initial attack will be made by ground pumpers, handcrews, and aircraft (if available). Retardant may be used in initial attack and as reinforcement, as deemed necessary by the IC. The use of fugitive marker dye in retardant would be preferable to reduce visual impacts.

Heavy equipment (cats/tractors) will not be used in the Natural Area, except to prevent loss of human life or high-value property. High-value property is defined as structural improvements such as the communication sites on San Benito Mountain.

Fires that escape the initial attack phase or first burning period will be reinforced as necessary (at the discretion of the IC) with additional handcrews, engines and aircraft. Minimizing burned acreage will not be the primary consideration in project fire strategy. Indirect attack utilizing natural and existing man-made barriers is preferred.

F. Rehabilitation

All firelines constructed on slopes of 25 percent or more will be rehabilitated to prevent erosion. Rehabilitation measures may include waterbarring and backfilling. Rehabilitation requirements will be determined and supervised by the Environmental Specialist.

There will be no re-seeding or planting of non-native or exotic species.

Prepared by:

Resource Management Specialist,
Hollister Resource Area _____ Date

Approved By:

BLM Hollister Resource Area Manager _____ Date

CDF Ranger in Charge, San Benito -
Monterey Ranger Unit _____ Date

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GLOSSARY

Abbrevations

ACEC	Area of Critical Environmental Concern
ACHP	Advisory Council on Historic Preservation
AMP	Allotment Management Plan
AUM	Animal Unit Month
BLM	Bureau of Land Management
BMP	Best Management Practice
C&MU	Classification and Multiple Use
CDF	California Department of Forestry
CDFG	California Department of Fish and Game
CRMP	Cultural Resource Management Plan or Coordinated Resource Management Plan
EA	Environmental Assessment
EIS	Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
HMP	Habitat Management Plan
MA	Management Area
MFP	Management Framework Plan
MOU	Memorandum of Understanding
NCLWMA	National Cooperative Land and Wildlife Management Area
NR	National Register (of Historic Places)
NFDRS	National Fire-Danger Rating System
NFFL	Northern Forest Fire Laboratory

OHV	Off-Highway Vehicle
ORV	Off-Road Vehicle
OSHA	Occupational Safety and Health Administration
RMP	Resource Management Plan
ROS	Recreation Opportunity Spectrum
RTE	Rare, Threatened, or Endangered
SCS	Soil Conservation Service
SHPO	State Historic Preservation Officer
SRMA	Special Recreation Management Area
SVRA	State Vehicular Recreation Area
TRT	Technical Review Team
VRM	Visual Resource Management

Terms

ACTION MODIFICATION: A modification of fire suppression tactics: for example, to limit use of mechanized equipment or use of wildfire to accomplish pre-determined fuels management objectives. Not to be confused with a "let burn" policy.

ACTIVITY PLAN: A detailed action plan for a particular resource or combination of resources prepared subsequent to the land use plan. The activity plan details how to accomplish the stated objectives of the land use plan for a particular area, allotment, etc., by the use of site-specific projects and analysis.

ALLOTMENT: An area of land where one or more operators graze their livestock. It contains public lands and can include parcels of private or state-owned lands. The number of livestock and period of use are stipulated for each allotment. An allotment may consist of several pastures or be only one pasture.

ALLOTMENT MANAGEMENT PLAN: A livestock grazing management plan dealing with a specific unit of rangeland, and based on multiple-use resource management objectives. The AMP considers livestock grazing in relation to other uses of the range and in relation to renewable resources - watershed, vegetation and wildlife. An AMP establishes the seasons of use, the number of livestock to be permitted on the range, the range improvements needed, and the grazing system.

ANIMAL UNIT: The equivalent of one mature (1,000 lb.) cow or five sheep based upon average daily forage consumption of 26 lbs. dry matter per day.

ANIMAL UNIT MONTH: (1) The amount of feed or forage required by an animal unit for one month (i.e., 800 lbs/month). (2) Tenure of one animal unit for a period of one month.

ANNUALS: Plants produced from seed which complete their life cycle in one growing season.

ARCHAEOLOGICAL DISTRICT: A series of individual sites which occur in proximity and form a culturally related unit. One type of National Register entry.

ARCHAEOLOGICAL RESOURCES: Sites, areas, structures, objects, or other evidence of prehistoric or historic human activities.

ARCHAEOLOGICAL SITE: Geographic locale containing structures, artifacts, material remains, and/or other evidence of past human activity.

AREA OF CRITICAL ENVIRONMENTAL CONCERN: An Area of Critical Environmental Concern (ACEC) is an area within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and property from natural hazards.

BEDROCK MORTAR: Exposed rock or stone which exhibits grinding depressions formed by the milling of acorns and other food-stuffs by Indians.

BEST MANAGEMENT PRACTICE: A practice or combination of practices determined by the state and/or area-wide planning agencies, after problem assessment, examination of alternative practices, and appropriate public participation, to be the most effective, practicable means of preventing or reducing pollution generated by non-point sources to a level compatible with water quality standards.

BROWSE: The tender shoots, twigs, and leaves of trees and shrubs often used as food by deer, livestock, and other animals; or to feed on or eat browse.

CAMP SITE: Area utilized for one or more tasks, which also shows evidence of occupation by the presence of housepits, midden deposits, and/or hearths.

CARRYING CAPACITY: The maximum stocking rate possible without damaging vegetation or related resources. Carrying capacity may vary from year to year on the same area due to fluctuating forage production caused primarily by differing amounts of precipitation.

CARSONITE POSTS: Brightly colored, lightweight, and durable posts manufactured by Carsonite International. They are a flexible composition of marble, glass fiber, and polymers.

CLASS I CULTURAL INVENTORY: An inventory of the existing literature and a profile of the current data base for cultural resources, frequently utilized to guide field inventories.

CLASS II CULTURAL INVENTORY: A sample-oriented field inventory which is representative of the range of cultural resources within a finite study area.

CLASS III CULTURAL INVENTORY: An intensive field inventory designed to locate and record, from surface and exposed profile, all cultural resources within a specified area.

CONTROLLED BURNING: The precursor to prescribed burning, controlled burning has been planned and carried out by ranchers under permit from the California Department of Forestry since 1945.

CULTURAL RESOURCES: Fragile and nonrenewable elements of human culture including archaeological remains (areas, structures, objects, or evidences of prehistoric or historic human activities) and socio-cultural values traditionally held by ethnic groups (sacred places, traditionally utilized naturally-occurring raw materials, etc.).

DATA RETRIEVAL: The planned professional recovery of archaeological data to mitigate impacts or for research. Excavation, surface collection and technical drawings are examples of data retrieval.

ENDANGERED SPECIES: Any species which is i danger of extinction throughout all or a significant portion of its range.

FORAGE: All browse and herbaceous foods that are available to grazing animals.

FORB: Non-woody herbaceous plants neither grass nor resembling grass.

FUEL MODELS: A simulated fuel complex for which all the fuel descriptors required by the mathematical fire spread model have been specified.

GRAZING LEASE: A document authorizing use of the public lands for the purpose of grazing livestock.

GUZZLER: A wildlife water catchment and storage device utilizing a concrete or steel apron to catch rainfall and a buried tank (usually fiberglass) to store it. Guzzlers usually store about 900-1,000 gallons of water, when full. They are accessible, at ground level of small wildlife, by means of a ramp leading into the tank.

HABITAT: The natural environment of plant or animal.

HISTORIC: Refers to period wherein non-native cultural activities took place, based primarily upon European roots, having no origin in traditional Native American culture(s).

KIOSK: A small structure with one or more open sides used as an information booth.

LITHIC: A stone or rock that may be either abraded into the proper form for use as a tool or shaped by knocking pieces (flakes) off. A cluster of flakes is called a "lithic scatter."

MIDDEN: Dark-colored soil deposits formed from organic residues remaining from Indian campsites, frequently containing artifactual, faunal, and floral constituents of high scientific value.

MONITORING: Specific studies which evaluate the effectiveness of actions taken toward achieving management objectives.

NATIONAL REGISTER OF HISTORIC PLACES (NRHP): A register of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture, established by the Historic Preservation Act of 1966 and maintained by the Secretary of the Interior.

NATIONAL REGISTER ELIGIBLE: Status conferred upon a cultural resource when it is deemed qualified for the NRHP, following formal documentation and consultation.

NATIONAL REGISTER POTENTIAL: Status of a cultural resource which is deemed qualified for the NRHP, prior to formal documentation and consultation; managed as if it were actually listed.

OFF-ROAD VEHICLE DESIGNATIONS: Executive Order 11644 requires that all public lands be designated for appropriate levels of vehicle use in one of three possible categories: Open, Limited, or Closed.

Open - Vehicle use allowed anywhere in the area.

Limited - Vehicle use restricted in some way, such as limited to designated or existing routes.

Closed - Vehicle use not permitted.

PETROGLYPH: A figure, design, or indentation carved, abraded or pecked onto a rock.

PLANT COMMUNITY: A regional element of the vegetation characterized by the presence of certain dominant species. A vegetation type may consist of one to several communities.

PREHISTORIC: Refers to period wherein Native American cultural activities took place which were not yet influenced by contact with historic non-native culture(s).

PRESCRIBED BURNING: The application of fire to wildland fuels under such conditions of weather, fuels, and topography that specific objectives are accomplished safely.

PRIMITIVE RECREATION: Nonmotorized and nondeveloped types of outdoor recreational activities.

PUBLIC LAND: Land administered by the Bureau of Land Management.

QUARRY SITES: Places where minerals occur which were a source of raw material for prehistoric/historic peoples.

RANGE IMPROVEMENT: Any activity or program on or relating to rangelands which is designated to improve production of forage, change vegetation composition, control patterns of use, provide water, stabilize soil and water conditions, and provide habitat for livestock, wild free-roaming horses and burros, and wildlife. The term includes but is not limited to structures, treatment projects, and use of mechanical means to accomplish the desired result.

RECREATION OPPORTUNITY SPECTRUM: A system used to characterize recreation opportunities in terms of setting, activity, and experience.

RESIDUAL MULCH: The amount of dry plant material measured in pounds per acre left on the ground from the previous year's growth.

RIGHT-OF-WAY GRANT: A right attached to the land for use by another party (i.e., utility lines, road, etc.).

RIPARIAN: Situated on or pertaining to the bank of a river, stream, or other body of water. Normally used to refer to the plants of all types that grow rooted in the water table of streams, ponds and springs.

ROCK ART/CEREMONIAL SITES: Petroglyphs or pictographs, some of which were probably expressions of Native American ceremonial activities.

ROCKSHELTER: Naturally-formed recess in a rock formation which provided shelter to prehistoric occupants.

SEASON OF USE: That period of time, as designated in planning documents, within which livestock grazing can be authorized.

SENSITIVE PLANTS: Those plants which require management consideration under current BLM policy.

SEGREGATION: Refers to the status of lands and what laws (mineral or land disposal) may be excluded from applying to the lands.

SPECIAL RECREATION MANAGEMENT AREAS: Recreation Management Areas where congressionally recognized recreation values exist or where significant public recreation issues or management concerns occur. Special or more intensive types of

management are typically needed. Detailed recreation planning is required in these areas and greater managerial investment (e.g., facilities, supervision, etc.) is likely. There may be none to several of these areas within a resource area. The size of these management units is typically over 1,000 acres, but exceptions can occur for smaller sites (e.g., very large campground units, trail segments, historic sites, etc.).

TEMPORARY CAMP: Area utilized seasonally or for short-term activity with evidence of occupation in addition to primary task(s). Usually smaller than "camp" sites, with less midden depth and extent, fewer tasks evident, with a less diverse natural resource base available.

THREATENED SPECIES: Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

VEGETATION TYPE: A grouping of similar vegetation based on structure, a product of the complex of climatic factors effective in a region.

VISITOR HOURS: Unit of measure for recreation use; one hour spent on public land by one recreationist.

VISUAL RESOURCE MANAGEMENT (VRM): The planning, design and implementation of management objectives to provide acceptable levels of visual impacts for all BLM resource management activities. VRM Classes are used to describe the degree of modification permitted in the basic elements of the landscape.

Class II - Changes in any of the basic elements (form, line, color, texture) caused by a management activity, should not be evident in the characteristic landscape. The contrast may be seen but must not attract attention.

Class III - Contrasts to any of the basic elements (form, line, color, texture) caused by a management activity may be evident and begin to attract attention but should remain subordinate to the existing landscape.

Class IV - Contrasts may attract attention and be a dominant feature of the landscape in terms of scale, but should repeat the form, line, color, and texture of the characteristic landscape.

WATERSHED: The area drained by a river or stream system.

WITHDRAWAL: A formalized action restricting specified lands from operation or disposal under specified laws, either mineral laws or land disposal laws, or both. Can also be used to transfer jurisdiction of lands to another Federal agency.

WOODLAND TYPE: Areas with at least a ten percent canopy cover of woody plants, primarily oak and pine. Woodlands usually provide herbaceous forage in the understory for livestock grazing.

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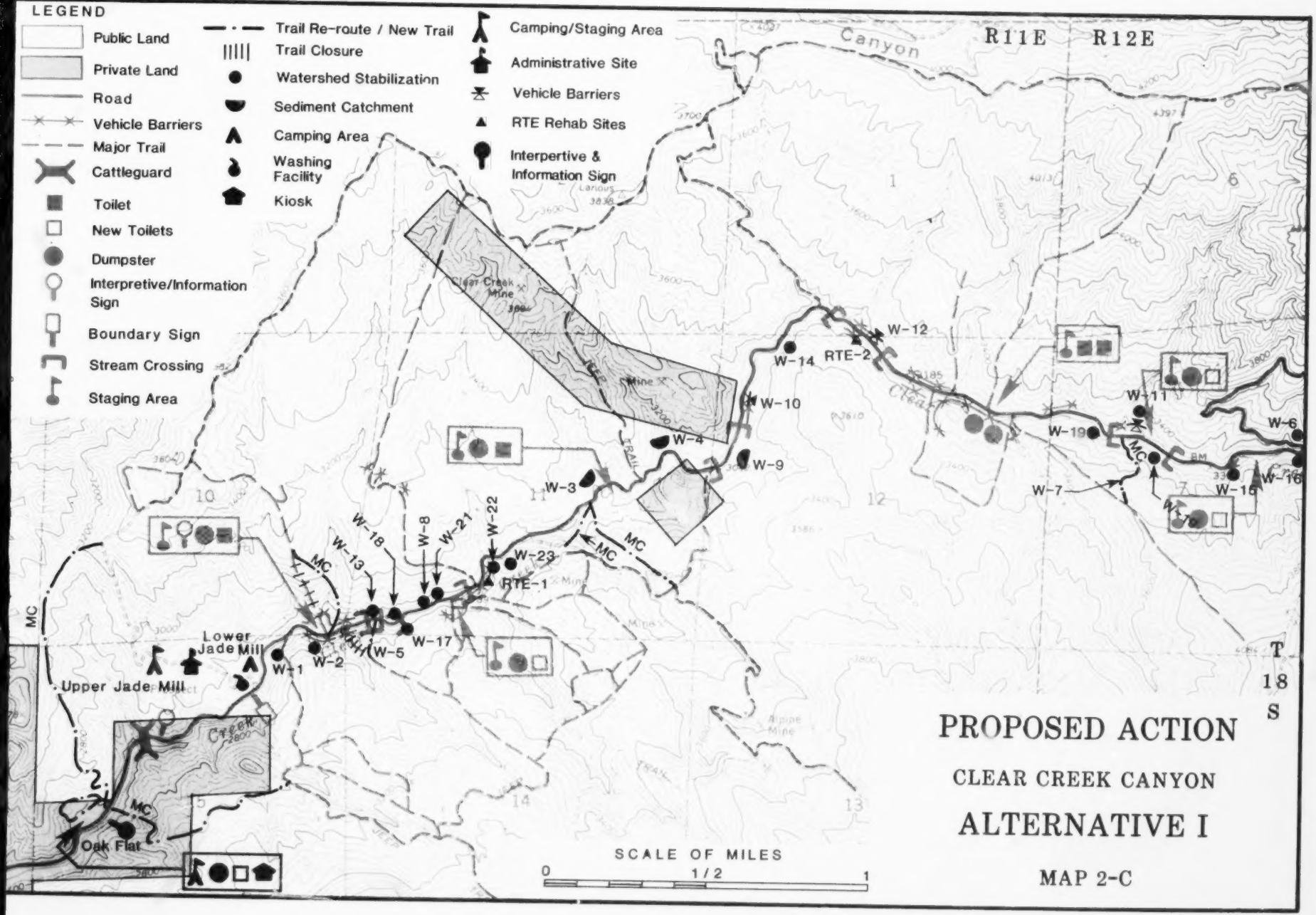
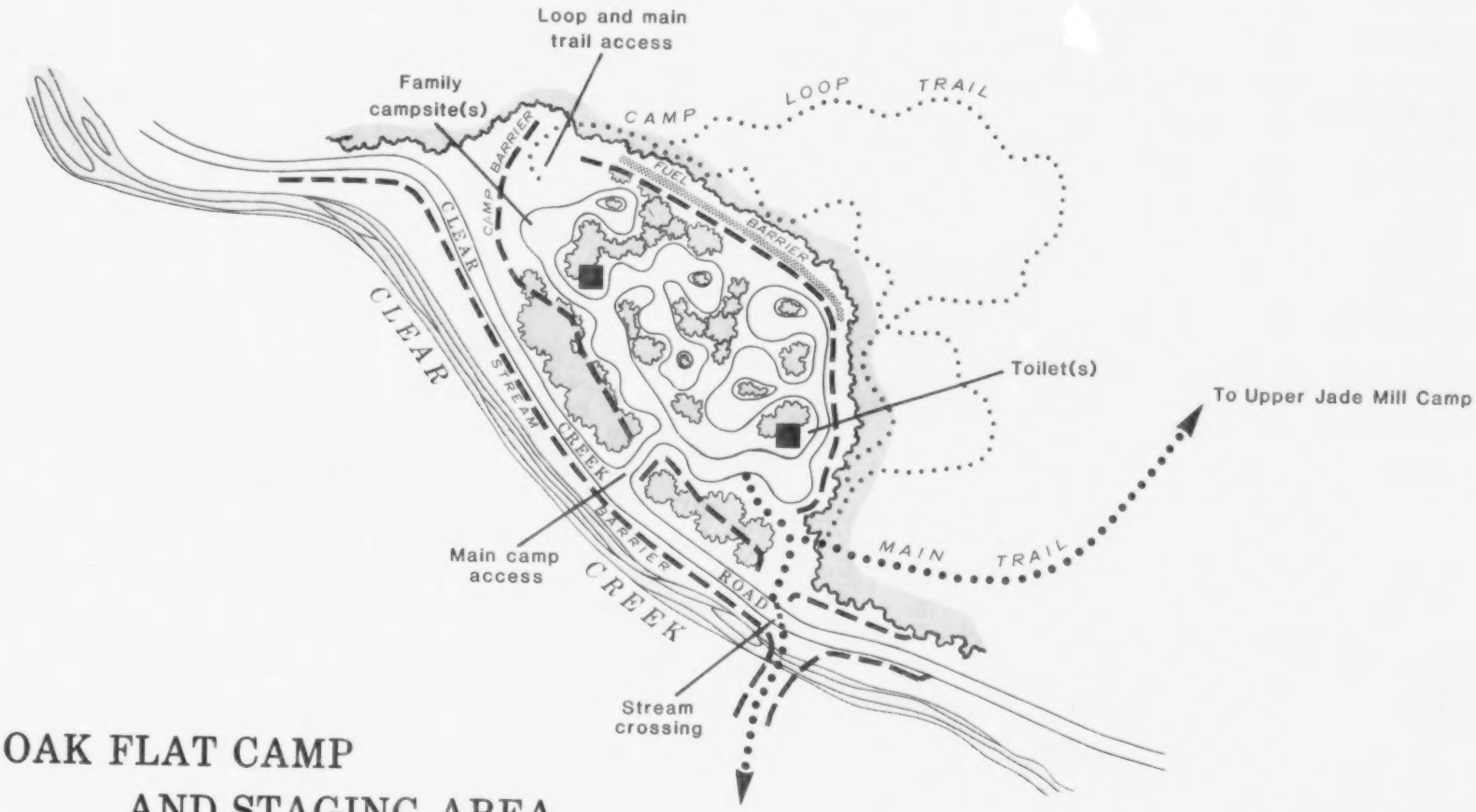
☆U.S. GOVERNMENT PRINTING OFFICE: 1985-591-382


LEGEND
Public Land
Private Land
Road
Vehicle Barriers
Major Trail
Cattleguard
Toilet
New Toilets
Dumpster
Interpretive/Information Sign
Boundary Sign
Stream Crossing
Staging Area
Trail Re-route / New Trail
Trail Closure
Watershed Stabilization
Sediment Catchment
Camping Area
Washing Facility
Kiosk
Camping/Staging Area
Administrative Site
Vehicle Barriers
RTE Rehab Sites
Interpertive & Information Sign
R11E
R12E
T 18 S
Canyon
Clear Creek Mine
Lower Jade Mill
Upper Jade Mill
Oak Flat
Creek
MC
W-1
W-2
W-3
W-4
W-5
W-6
W-7
W-8
W-9
W-10
W-11
W-12
W-13
W-14
W-15
W-16
W-17
W-18
W-19
W-21
W-22
W-23
RTE-1
RTE-2
SCALE OF MILES
0
1/2
1
PROPOSED ACTION
CLEAR CREEK CANYON
ALTERNATIVE I
MAP 2-C



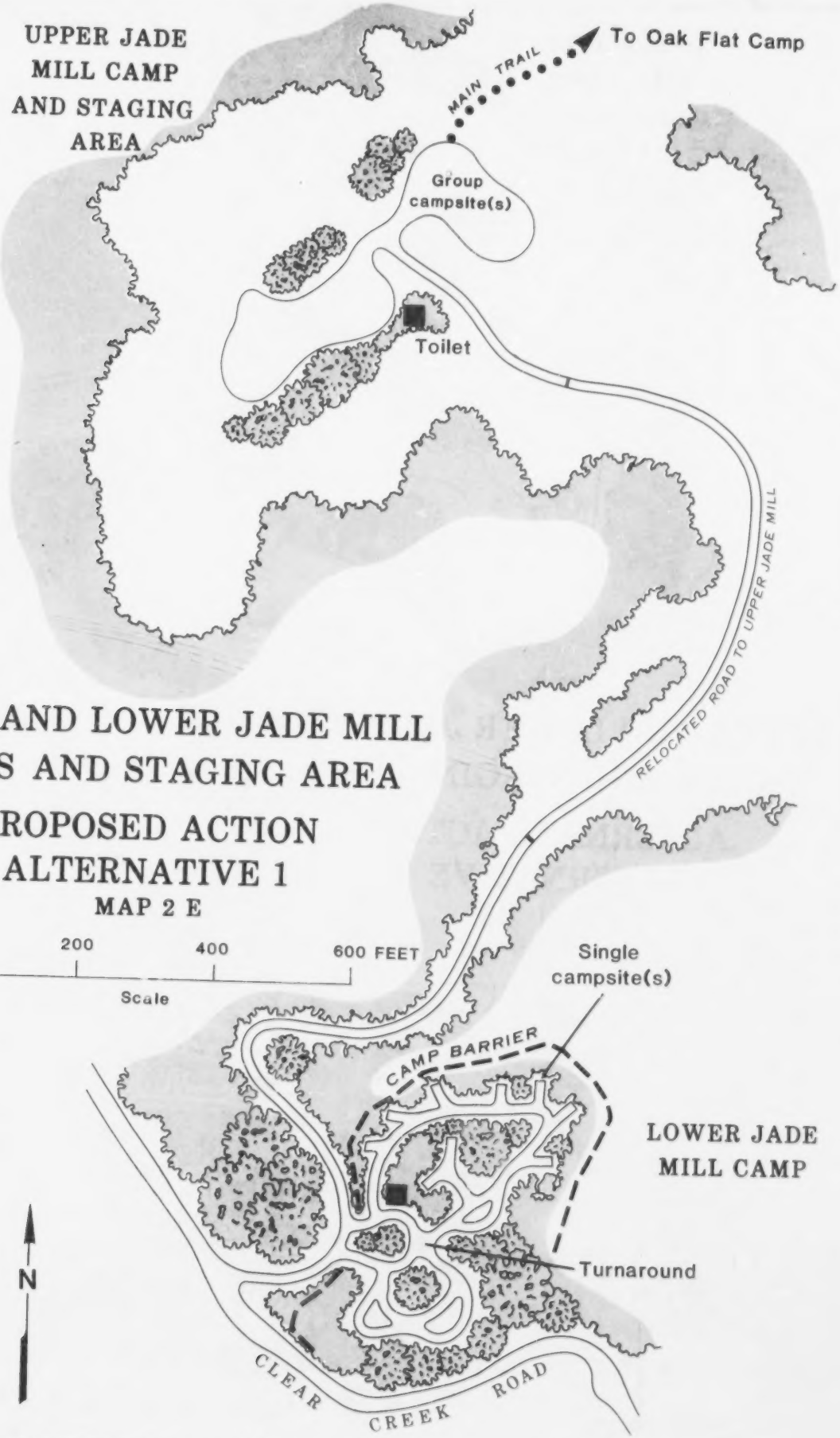
OAK FLAT CAMP
AND STAGING AREA
PROPOSED ACTION
ALTERNATIVE 1

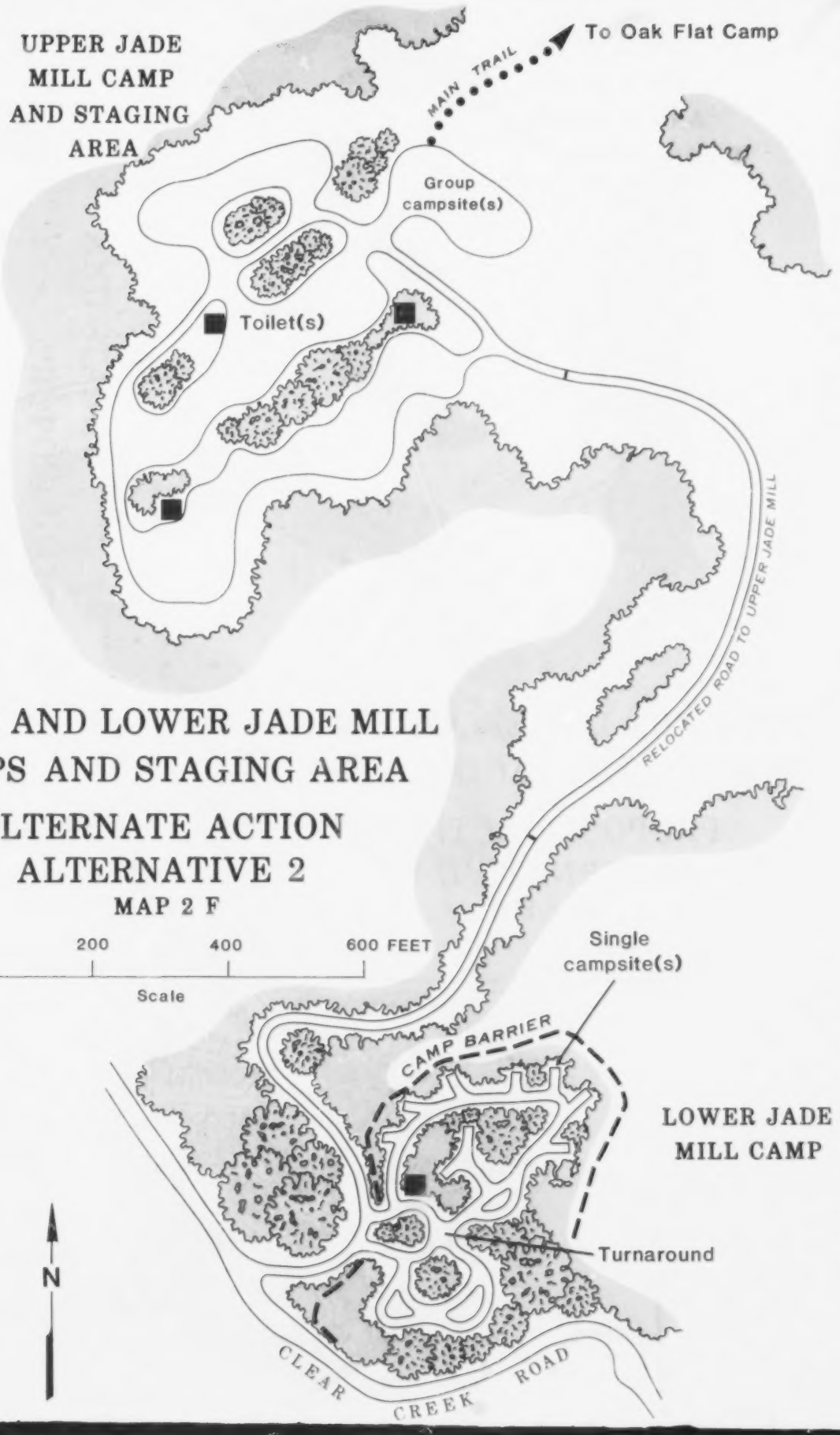
MAP 2 D

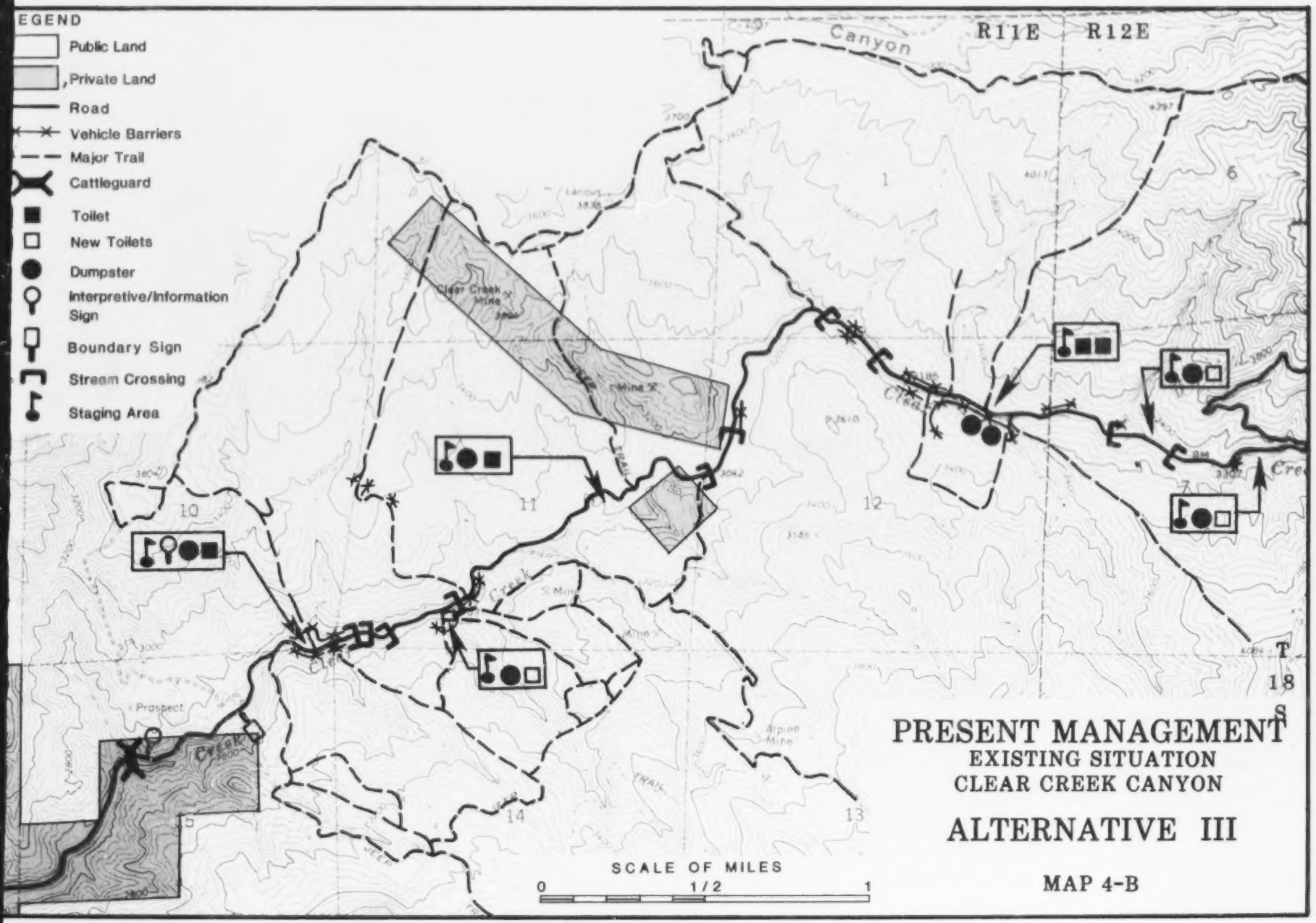
N

0 200 400 600 FEET

Scale


UPPER JADE MILL CAMP AND STAGING AREA
MAIN TRAIL
To Oak Flat Camp
Group campsite(s)
Toilet
RELOCATED ROAD TO UPPER JADE MILL
UPPER AND LOWER JADE MILL CAMPS AND STAGING AREA
PROPOSED ACTION
ALTERNATIVE 1
MAP 2 E
0
200
400
600 FEET
Scale
Single campsite(s)
CAMP BARRIER
LOWER JADE MILL CAMP
Turnaround
N
CLEAR CREEK ROAD


UPPER JADE MILL CAMP AND STAGING AREA
To Oak Flat Camp
MAIN TRAIL
Group campsite(s)
Toilet(s)
RELOCATED ROAD TO UPPER JADE MILL
UPPER AND LOWER JADE MILL CAMPS AND STAGING AREA
ALTERNATE ACTION
ALTERNATE 2
MAP 2 F
0
200
400
600 FEET
Scale
Single campsite(s)
CAMP BARRIER
LOWER JADE MILL CAMP
Turnaround
N
CLEAR CREEK ROAD



PRESENT MANAGEMENT
EXISTING SITUATION
CLEAR CREEK CANYON
ALTERNATIVE III

MAP 4-B

R11E

R12E

R13E

R14E

T 17 S

T 18 S

T 19 S

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
BAKERSFIELD DISTRICT
HOLLISTER RESOURCE AREA

CLEAR CREEK MANAGEMENT PLAN

PROPOSED ACTION-LAND

TENURE ADJUSTMENTS
(LAND EXCHANGES AND/OR ACQUISITIONS)

ALTERNATIVE I

MAP 2-A

LEGEND

- Public Land (BLM)
- State Land
- Private Land
- Recently Acquire (Eade exchange)
- Fat City
- Martin
- Southern Pacific
- All Other
- Study Area Boundary

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
BAKERSFIELD DISTRICT
HOLLISTER RESOURCE AREA

CLEAR CREEK MANAGEMENT PLAN

PROPOSED ACTION
ALTERNATIVE I

MAP 2-B

R11E R12E R13E R14E

T 17 S

T 18 S

T 19 S

SAMPSON PEAK BURN UNIT

BYLES CANYON BURN UNIT

GOAT MOUNTAIN BURN UNIT

CONDON PEAK BURN UNIT

SAN CARLOS BOLSA BURN UNIT

SAN BENITO MOUNTAIN NATURAL AREA

JOAQUIN ROCKS NATURAL AREA

Asbestos Warning Bulletin Board

LEGEND

- Public Land (BLM)
- State Land
- Private Land
- Study Area Boundary
- Natural Area Protective Withdrawal
- Clear Creek Serpentine Area of Critical Environmental Concern (ACEC)
- Prescribed Burn Unit

PROPOSED AREAS

- Areas Open to Vehicle Use
- Areas Limiting Vehicle Use to Designated Routes
- Areas Closed to Vehicle Use

EXISTING SITUATION

- Major Roads
- Vehicle Barriers
- Pipelines
- Gates
- Directional Signs
- Interpretive / Information Signs
- Boundary Signs
- Guzzlers
- Springs
- Improved Springs
- Cattleguard
- Pond or Trough
- Communication Sites

9200 BLM Project Numbers

PROPOSED ACTIONS

- Hobby Gem & Mineral Protective Withdrawal Areas
- Soil Study Areas
- Lands to be Acquired
- Prescribed Burn Unit
- Vehicle Barriers
- Directional Signs
- Interpretive / Information Signs
- Guzzlers
- Meadow Exclosures
- Spring Improvement
- Gate
- Boundary Sign
- Closed Area

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
BAKERSFIELD DISTRICT
HOLLISTER RESOURCE AREA

CLEAR CREEK MANAGEMENT PLAN

ALTERNATIVE ACTION

ALTERNATIVE II

MAP 3

R11E R12E R13E R14E

T 17 S

T 18 S

T 19 S

SAMPSON PEAK BURN UNIT

SPANISH FLAT

SAN CARLOS BOLSA BURN UNIT

BYLES CANYON BURN UNIT

SAN BENITO MOUNTAIN NATURAL AREA

GOAT MOUNTAIN BURN UNIT

UNION CARBIDE ROAD

JOAQUIN ROCKS NATURAL AREA

CONDON PEAK BURN UNIT

WHITE CREEK ROAD

PINE CANYON ROAD

To Los Gatos Creek Road 2.5 Mi.

LEGEND

- Public Land (BLM)
- State Land
- Private Land
- Study Area Boundary
- Natural Area Protective Withdrawal
- Clear Creek Serpentine Area of Critical Environmental Concern (ACEC)
- Prescribed Burn Unit

PROPOSED AREAS
- A — Areas Open to Vehicle Use
- B — Areas Limiting Vehicle Use to Designated Routes
- C — Areas Closed to Vehicle Use

EXISTING SITUATION
- Major Roads
- Vehicle Barriers
- Pipelines
- Gates
- Directional Signs
- Interpretive / Information Signs
- Boundary Signs
- Guzzlers
- Springs
- Improved Springs
- Cattleguard
- Pond or Trough
- Communication Sites

9200 BLM Project Numbers

PROPOSED ACTIONS
- Hobby Gem & Mineral Protective Withdrawal Areas
- Soil Study Areas
- Lands to be Acquired
- Prescribed Burn Unit
- Vehicle Barriers
- Directional Signs
- Interpretive / Information Signs
- Guzzlers
- Meadow Exclosures
- Spring Improvement
- Gate
- Boundary Sign
- Closed Area
- Acquire Easement
- Camp Ground
- Sediment Catchment

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
BAKERSFIELD DISTRICT
HOLLISTER RESOURCE AREA

CLEAR CREEK MANAGEMENT PLAN

PRESENT MANAGEMENT

EXISTING SITUATION

ALTERNATIVE III

MAP 4-A

R11E R12E R13E R14E

T 17 S

T 18 S

T 19 S

BYLES CANYON BURN UNIT

GOAT MOUNTAIN BURN UNIT

CONDOR PEAK BURN UNIT

SAN BENITO MOUNTAIN NATURAL AREA

Asbestos Warning & Bulletin Board

Asbestos Warning

LEGEND

- Public Land (BLM)
- State Land
- Private Land
- Existing Mining Claim Area
- San Benito Mountain Natural Area
- Clear Creek Serpentine Area of Critical Environmental Concern (ACEC)
- Prescribed Burn Unit
- Areas Open to Vehicle use
- Areas Limiting Vehicle Use to Designated Routes
- Areas Closed to Vehicle use
- Major Roads
- Vehicle Barriers
- Pipelines
- Gates
- Directional Signs
- Interpretive / Information Signs
- Boundary Signs
- Guzzlers
- Springs
- Improved Springs
- Cattleguard
- Pond or Trough
- Communication Sites
- 9200 BLM Project Numbers